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Georgia Sarika

Public Value Creation in Digital Public Services:

exploring the transformation potential of the digital commons

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Supervisor: Prof. Vasilis Kostakis

Presented by: Georgia Sarika
14 Georgiou Sfrantzi, 2047 Nicosia
+357 99095584
gesari@taltech.ee

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Content

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Figures

Tables

Abbreviations

CBEG   Commons-based Economic Governance
CBPP   Commons-based Peer Production
ICT   Information and Communication Technologies
IIPP   Institute for Innovation and Public Purpose
NGO   Non-governmental Organisation
NPM   New Public Management
OECD   Organisation for Economic Co-operation and Development
PV   Public Value
P2P   Peer-to-Peer
SME   Small-medium Enterprise
UCL   University College London

1   Introduction

"There is enormous inertia – a tyranny of the status quo – in private and especially governmental arrangements. Only a crisis – actual or perceived – produces real change.

When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available

until the politically impossible becomes politically inevitable."

Milton Friedman, Preface to Capitalism and Freedom (1982 edition),
p. ix - Capitalism and Freedom (1962)

Following the restrictive measures taken on a national and global scale in an attempt to contain the spread of COVID-19, governments are now in a race of digitalizing faster and providing all their services online in a more convenient way for their citizens. Simultaneously, this major recent crisis has exposed the lack of dynamic capabilities and agility of many governments worldwide (Mazzucato & Kattel, 2020). Traditional modes of government are not capable of effectively dealing with global challenges, with confidence in capacity of governments to meet those demands to be declining (Lima, 2021). Other weaknesses brought by the most recent crises also include the lack of trust in public sector institutions, the inexistence of data governance policies, the increasing concerns about data privacy, as well as the real value captured (see Bauwens & Kostakis, 2017).

The rapid development of Information and Communication Technologies (ICTs) during the last couple of decades has profoundly transformed the way governments and public sector institutions are functioning. Stepping away from a highly bureaucratic and siloed public sector during the times of traditional public administration and New Public Management (NPM), e-Governance has significantly improved the landscape (Heeks, 2006) touching also on other aspects beyond operational and financial efficacy.

By leveraging these advancements, the traditional setting of public services has moved from simply ensuring efficiency and low operational costs, towards attempting to improve societal well-being through sustainable development. As a result, public sector endeavours globally, have shown increased interest in enhancing their relationships with their citizens, minimising gaps and trying to gain their trust through open and transparent service provision (Othman et al., 2020). Nonetheless, as evident, the current governance modes do not seem to suffice the increasing complexity of issues, need and demands of a contemporary, globalized society (Laguyas et al., 2021).

Another issue arising from the literature on e-democracy and civic participation is the fact that an increasing number of studies examining various cases in practice, indicate the confusion between what co-creation and e-participation actually are (Arundel et al., 2020). Simultaneously, governments appear more and more hesitant to include citizens in decision- and policy-making, let alone in trusting them with self-governance and organisation through commoning.

As a result, and in attempt to address the aforementioned problem, the present study sets out to explore the possibility of utilising a different paradigm to improve practices in public governance. Specifically, the context of digital public services was particularly chosen as one of the most criticised functions of many central governments, during a prolonged period of strict restrictions against the spread of the COVID-19 pandemic. Evidently, these restrictions revealed a series of issues as in many cases, citizens were unable to access imperative services and information they needed, since physical governmental offices were not operating in full-time schedules (McKinsey, 2020). Also, in other cases, digital services were available but malfunctioning.

In an attempt to eliminate identified gaps in the literature, the precise methodology selected for the current study entails reaching out to several people holding prominent positions in various university departments focusing on public sector innovation, digital policy, open innovation and governance, public administration and democracy. This is due to the fact that solely interviewing commoners or peer-to-peer theorists and scholars would perhaps yield one-sided findings by emphasising only the perspective of commoning precursors. Therefore, this thesis is aiming to a more holistic approach towards a balanced and wide-ranging understanding of how and whether the commons paradigm could improve the way public services are delivered, in terms of generating public value.

In choosing phenomenological research, the idea was to bridge the different perspectives in academia, in an effort to understand where the fields lack in common ground, and therefore detect what is really missing in theory.

In a report by the OECD published in March 2019, the organisation is arguing about the crucial requirement of governments to digitally transform. This, according to a report by McKinsey (2020), is also crucial in terms of providing a "seamless user experience" besides other benefits to the internal operations of public organisations. To successfully overcome the challenge, they would first and foremost need to modify the pertinent institutional and governance frameworks. Noteworthy, the data usage and digital tools do

not stand as the end result of these endeavours. Substantial transformation towards meaningful innovation should require governments to "prioritise using digital technologies and data to rethink the design and implementation processes of public services and policies" (OECD, 2019, p.2) in an attempt to establish new, more citizen-centric ways which include transparency, openness and collaboration. Amongst the key recommendations suggested by the OECD (2019), lies the aspect of ensuring value creation.

Scholars and experts – such as Eaves et al. (2019) – have suggested alternative modes related to various issues governments are facing. Government-as-Platform is one of those concepts. New forms of governance are increasingly becoming more based on barring their entire reliance on central governments, shifting more towards various forms of collaborative governance.

An alternative route could include the *digital commons* as a protagonist in how citizens' needs and expectations are met, starting from the effective management and efficient delivery of public services. The notion of the commons encompasses "the forms of collective action, of coming together, that are not based on a logic of perpetual expansion, but of mutual and collective self-limitation" (Pazaitis et al., 2020, p.614). Commons systems revolve around self-organisation since past times, and prove that an appropriate interaction between the social and physical technologies, can deliver for tangible needs.

Community builds capabilities on the economic side, but on the social side builds a sense of identity, solidarity and the sense of belonging. Consequently, and connecting this back to power affordances (see Van Kleef et al., 2012), too much centralisation is as it seems, is one of the major causes of the situation we are experiencing right now in the world. A suggestion by many academics on this, is the view that decentralisation appropriately governed will help people find out the power of community. More powers decentralised to the community, i.e. more autonomy delegated to the community to create and manage on its own, constitutes the broad topic of this research.

In a recent talk, Carlota Perez (2020) argues that the world is currently mid-way along the fifth industrial revolution – the so-called *Age of Information, Technology and Telecommunications*. Historical record has shown a regular pattern of propagation within each industrial revolution. The current turning point in this era, is the re-organization – and in some places a recession – brought by the COVID-19 pandemic, following two other major recessions in the 21st century.

Amid major social and economic disruptions caused by unprecedented events, Ansell et al. (2021) draw upon Mintzberg and Alexandra's (1985) argument around the need for change in crisis management by governments. As maintained, bureaucratic means or pre-existing plans created and administered by a few politicians or senior civil servants and decision-makers are not the way forward any longer.

In this critical point in time, (Pazaitis et al., 2020) also suggest that the problem lies in the whole system in which it is deeply rooted, and not simply an externality. Amongst many other governance issues, the authors argue that the reluctance of governments to act proactively in order to avoid economic costs leading to major social problems, are all aligned with the "growth paradigm that prioritises the growth of GDP over human and ecological well-being" (Schmelzer, 2016 cited in Pazaitis et al., 2020, p.613) – as we have seen many political leaders choosing the economy over health.

The projected deployment period, as discussed by Perez (2020) requires a lead by production and the state. The latter will need to act as the shaper of context to ensure a positive sum-game for businesses and society. Ideally, peer governance and peer-to-peer production can play a major role in changing the role of the state and introduce a new system. This new system will enable the creation of new forms of business to enable and empower much more sharing and collaboration in the world (Ouishare TV, 2013) – the lack of which have been especially highlighted by the current pandemic. This could also enhance the effectiveness and efficiency by opening up processes and opportunities to the wider society, moving to a post-capitalist era (Mazzucato, 2018).

Peer-to-Peer (P2P) is defined as "a mode of relationship that allows human-beings to be connected and organized in networks, to collaborate, produce and share" (Bauwens et al., 2019, p.2). Collaboration results from various contributions, in a system that is open to anyone, i.e. no one needs to ask for permission. Rendering various commons antecedents' views, they behold that more and more groups of people could be deemed as capable of "organising the political, social and productive aspects of their life through various interconnected networks" (Kostakis & Giotitsas, 2013, p.210), such as the digital commons.

At this stage, commons-based peer production (CBPP) resembles a paradigm that could replace the existing governance system with an entirely new approach to production and organising the entire society (Bauwens et al., 2019). Evidently, this is becoming even more necessary nowadays, in order to stop relying on monopolies and very few supply sources. There is a need to become more autonomous from the dominant political economy, and therefore disengage from giving too much emphasis on the first two pillars – the market and state, leaving an uneven balance with the community aspect.

As Bauwens et al. (2019) further suggest: "eventually, we may arrive at a position where the balance of power is reversed: the commons and its social forces become the dominant modality in society, which allows them to force the state and market modalities to adapt to its requirements" (p.7). This is particularly important if we also assume that recent great polarisation in societies, may also affect people's behaviour and choices regarding their basic needs.

As argued in the literature, this field remains a promising one, as there are still plenty lessons to be learned in this respect, both from the "traditional" theory of commons, as well as from the emerging commons of geographically dispersed communities connected through the Internet, i.e. the digital commons.

Another popular argument in the public administration research, holds that public value results from meeting citizens' needs and expectations via the authorization of an open and collaborative ecosystem which includes all stakeholders in a society. Therefore, the commons could support such a mission, since citizens are directly co-producing and sharing freely, without the need of the markets or the state's power (Bauwens et al., 2019).

One significant challenge for successful adoption and growth of peer-to-peer networks is governance in a decentralized way and finding an appropriate governance structure that could be adapted to different contexts (Kaya et al., 2020). Nonetheless, the current study holds that total transformation to a wholly new mode of governance could be extremely challenging or even unrealistic in the current phase.

Driven by the inevitability to stabilize fundamental systemic flaws in digital era governance, and specifically in the context of digital public services, this research aims at finding the appropriate actors whose views will inform the debate between the neo-liberal and post-capitalist systems. I therefore propose an exploration of whether the field of digital-era governance could learn from the theory and practice of commons, and subsequently if this juxtaposition could aid in enhancing public value creation through the provision and delivery of public services.

By taking a holistic approach on the matter, the present study attempts to contribute to the academic literature by presenting a novel understanding stemming from the amalgamation of the two broad concepts leading to re-thinking e-democratic practices. The main research question on which this thesis is based upon is:

How could digital public services be improved through the digital commons in terms of creating public value?

Subsequently, the following three questions intend to lead to a desired and thorough response:

- What are the different perspectives on the meaning of value creation within public services and what are the current limitations?
- What could the scholarship and practice of the commons impart to the government in terms of delivering valuable digital public services?
- What are the potential enablers and challenges that need to be taken into consideration based on experts' perceptions and personal experiences?

To achieve the research aim, current and new knowledge and practices in the related disciplines of public administration, information systems, political economy, and other related theories are explored, in an attempt to bridge the technical side, socio-economic realities and the policy considerations of e-democratic practices, such as commons-based peer production initiatives and practices. Noteworthy, the research methodology followed in this thesis is to synthesise existing literature and new insights gathered through phenomenological research. Various academic perspectives are therefore assembled together and analysed based on the theoretical framework adopted – henceforward not intending to cover the entirety of the fields discussed.

Novel insights and opinions are an imminent outcome of the seven experts' interviews conducted. The interviewees represent various research institutions and foundations, such as the Ragnar Nurkse Department of Innovation and Governance (Tallinn University of Technology), the UCL Institute for Innovation and Public Purpose (IIPP), Harvard Kennedy School, The Aristotle University of Thessaloniki, the P2P Foundation and the commons lab in Heraklion, Greece.

The main conceptual framework of the thesis is based on a particular governance paradigm, that of digital era government. This automatically connotes the assumption that the commons form a distinctive governance paradigm. Henceforward, the thesis will be structured as follows. The following chapter conveys a brief history of the theory of commons, what it represents and how it evolved through the years to the digital commons that exist nowadays. The third chapter reviews the relevant literature, attempting to bridge all four areas comprising the research question – i.e. digital governance, digital public service provision, public value theory and the digital commons as an alternative mode of production and governance. Gaps in existing research are also stated, as the driver of this study's exploratory nature.

The next chapter presents the research methodology, which is selected according to my personal philosophical positions as a researcher. The chapter also explains the particular selection of a theoretical framework, as adapted for the purposes of the present thesis. Then, sampling, data collection and thematic analysis procedures are described in detail. Chapter five comprises of the qualitative data collection's result and categorized according to the selected theoretical framework's elements. Emergent themes also occur through the analysis, which are also based on the specific setting of digital public services. The following chapter discusses the results, in conjunction with noteworthy points from existing literature. Key take-aways and limitations to this study are also described. The last chapter concludes the present thesis, also suggesting possible future directions for research.

2   Research Background

2.1   The Commons

In their study, Kioupkiolis (2021) defines 'the Commons' as "the goods and resources that are collectively used, managed, and produced on equal terms for the common benefit of a certain community" (p.3). In essence, Bollier and Helfrich (2015) (cited in Ramos, 2017) direct their focus into explaining what the commons really embrace as a notion. As they maintain, commons are "an organic fabric of social structures and processes" (p.74). Therefore, they suggest a shift in how we perceive the commons and how this mutual inter-dependence between various elements could drive society towards the so-called 'common good'.

Of course, these date back to the traditional theorization of the Commons, as introduced by theorists such as Ostrom (1990) and are discussed later on. A popular theory stemming from the Commons, is that of the so-called 'Tragedy of the commons'. This arises when rational parties serve their own benefits through solely self-interest, therefore acting on the detriment of other individuals. Such a tragedy is therefore based on a poor situation for everybody involved due to individualism at the expense of the community (Hardin, 1968 cited in Stern, 2011). As a solution to this problem, governments took advantage of their position and held that by taking over these commons or privatizing them would avoid the selected benefit of the few against all other equals. Nonetheless, as discussed later in the Literature Review chapter, this proved as non-beneficial for the whole society and does not seem to have worked very well.

Through her observations, Elinor Ostrom presented a set of key design rules which could formulate an alternative management framework for the global commons, i.e. the natural resources which people could self-govern themselves at the local level. This would therefore entail a high degree of collaboration and shared power of the resource, as well as long-lasting value through sustainability (Ostrom, 1999 cited in Telemo et al., 2015, p.1).

Author David Bollier describes the Commons in a few examples, such as natural resources which were initially afforded to humankind for free (e.g. land, water supply), as well as collectively produced commodities, which include shared knowledge or tools. These are then categorized in different groups according to their properties.

According to the P2P Foundation's (2017) scholars and theorists, "the Commons, as an idea and practice, has emerged as a new social, political and economic dynamic" (p.5).

This alternative paradigm embraces a third type of societal organisation, besides the state (i.e. the national governments) and the markets.

Antecedents of such modality (such as author David Bollier), hold the belief that the Commons in general, including peer networks and production, create a governance structure which is primarily based on prioritizing the needs of society as a whole. This entails certain practices and organizational schemes which include all societal actors and stakeholders, as well as the environment in which we live in and all the 'free' resources it comes with. As claimed, transitioning to such an alternative mode of governance would refrain from anachronistic, centrally planned methods, and from following practices which are based on capitalism's competitive interests brought by the market-based economic systems (P2P Foundation, 2017).

Based on Bauwens' commons typology, commons can be categorized in four distinct main groups. The first is dating back to Ostrom's (1990) studies, and is described as the natural "common-pool resources", i.e. the global common resources which were given to the humankind for free and were claimed as critical for our survival – fishing, water (rivers and lakes), land for agriculture, forests and so on. The second type consists of common productive assets, such as cooperatives initiated by the working population (Dyer-Witheford, 2012 cited in Kioupkiolis, 2021, p.3). According to an alternative categorization attempt by Ramos (2017), these can also be described as the social commons, including shared goods usually given by the state and society itself, such as road infrastructure, public libraries etc.

The third category entails the local resources which are created effortlessly and mutually, through different means. These are the language, education and culture (Ramos, 2017) which differ from place to place and are essentially shaped by people's inherited backgrounds, as well as novel influences and experiences. Last but not least, the digitally peer produced commons, which are extensively described for the purpose of the present study at a later stage.

The categorization is demonstrated in Figure 1 below, indicating also which groups of commons appear as material or non-material 'goods' and whether they are produced or have traditionally existed within communities.
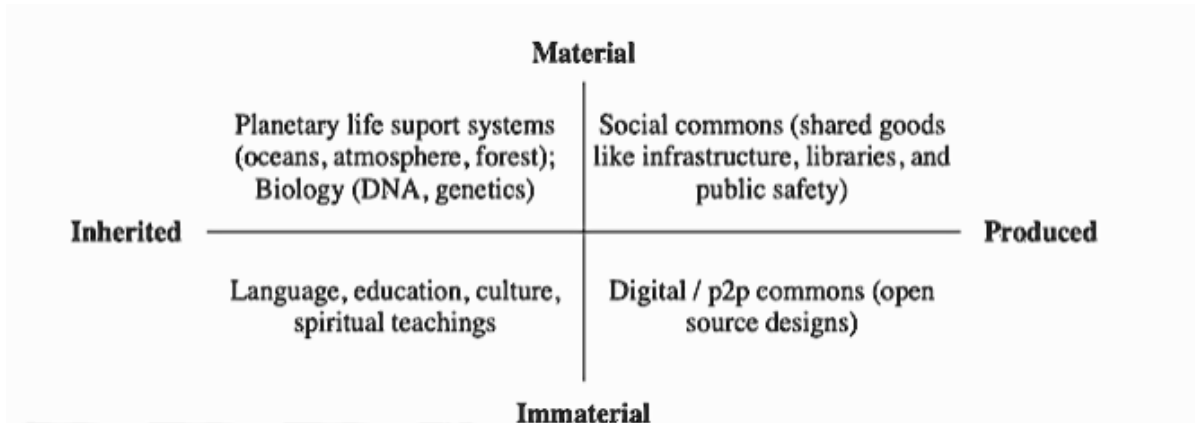
Figure 1 Four categories of commons (Ramos, 2017, p. 75)

Most importantly, Commons proponents hold that "there is no commons without commoning" (P2P Foundation, 2017, p.5). This is to highlight the fact that the concept entails a whole ecosystem which revolves around them – i.e. it does not solely comprise of the resource, or the people involved, or the underpinned rules, but all these (and more elements) together.

A good example to demonstrate this juxtaposition in practice is that of Wikipedia – a renown online platform very widely used on a daily basis. As a matter of fact, Wikipedia is a commons-based invention which is composed of knowledge shared freely (resource), contributors and editors (community) and for organisational purposes, their own guide for content and editing (rules) (P2P Foundation, 2017). Almost just like in a society, where citizens need to adhere to the national laws and contribute to the economy through selling their skills.

2.2 Peer to Peer (P2P)

According to Commons activists and theorists, "P2P" formulates the way in which common goods and resources are managed, created and so on. P2P stands for peer to peer, or people to people, as it involves a dynamic ecosystem which connects a person to a person for collaboration purposes. This network of peers then creates value by sharing resources and therefore building the so-called, commons practices (P2P Foundation, 2017).

A very well-known and widely used example of a P2P network, is the (illegal) sharing of multimedia files over the Internet, through platforms like LimeWire for example, during the late nineties and early two-thousands (P2P Foundation, 2017). However, the relationship between peers in that case was limited to simply distributing files and data through computers, mostly done automatically by the programs installed.

As a result, experts such as Bauwens and Kostakis, clarify that a computer does not have to be fully or even at all directly connected to another one in order to facilitate a peer to peer relation between real users. This is due to a usual confusion that arises based on the interconnectedness of computer users and the computers between each other – "the technological infrastructure (computers communicating) and the relational dynamic (people communicating)" (P2P Foundation, 2017, p.7).

For instance, take other popular platforms such as Facebook and Bitcoin, or open-source software such as Linux. They all share similar dynamics based on peer-to-peer connections, but they operate based on very distinctive worldviews, mindsets and political orientations. Also, characteristic is that contribution happens amongst peers without any particular permission from anyone. Nonetheless, platforms such as Wikipedia have their own rules and procedures commonly decided for better organisation, as well as a team of editors who keep track of the correct application of those rules (P2P Foundation).

What can be deemed as extremely interesting here, is the fact that peer-to-peer (P2P) dynamics have been around since the very beginning of humankind, comprising the most common type of relations in the nomadic hunting communities. Even if they were almost banished within certain eras, they are nowadays rising again mainly due to the advances of communication technologies.

2.3   The history of Commons-based Peer Production (CBPP)

Going back to the history of the Commons as an economic and organisational theory, a recent study by Ramos (2017) describes our evolution to the governing system we follow nowadays. Due to the surge in capitalistic attitudes and economic individualism over the last couple of centuries, our world nowadays does not seem similar to how it used to be. This is a result of repetitive and increasing greediness and other actions based on profit-making, which eventually caused our planet to begin deteriorating.

The on-going climate crisis and other major crises besides the current COVID-19 pandemic, have demonstrated that neo-liberal economic governance is not the way to go anymore. Ramos (2017), as well as Bauwens and other concurring scholars, hold that as a good alternative strategy, "the idea of commons-based economic governance (CBEG) is put forward as one of a number of possible successors to neo-liberalism in the years to come" (p.73).

Consistent with the general Commons theory, CBEG appears as a third mode of economic development and organisation (also consistent with Elinor Ostrom's theories). The way

in which the world is operating right now is through markets and the state, either approach used simultaneously or in discrepancy in order to solve most problems.

More explicitly, economic problems are usually procured for solutions to the private sector via a market-based system, whereas governmental economic policies are targeted within the government itself, i.e. the state is expected to solve their issues themselves. Over the last few decades, where the aforementioned policy attempts would not prove fruitful, partnerships within the public and private sectors were initiated in order to solve economic problems (Ramos, 2017).

Nevertheless, the reason for this is proclaimed through the belief that self-interest would always prevail, therefore making communities dispute over the fair share of those common resources. As a result, states decided to step in and through their management capacity, take the resources in their possession – of course not keeping their promise of equity between all societal actors, but start benefitting from them in various ways (Ramos, 2017).

A profound reason why states do not appear keen in the idea of commons-based economic governance (CBEG) is that they will not continue being in possession of vital for survival resources, through which they usually monetary benefit from or use as tools to control polity. This is mainly due to the observation that especially through the previous and beginning of current centuries, the state proved to be indifferent in the idea of enhancing societal well-being and strengthening the sense of community (Papadimitropoulos, 2020; Ramos, 2017). Moreover, they appear in favour of many industries which destruct the environment and land through their dangerous and greedy activities, as they do not seem to want to alter current policies which allow these private actors to continue acting undisturbed. "And we have also seen that private interests via processes of capitalism are also not equipped to protect the commons – capitalism, almost by definition, produces vast social and ecological externalities (problems) as a by-product of the concern with immediate profit" (Ramos, 2017, p.74).

Returning to the historical context, a new form of peer-produced commons appeared shortly after the arrival of the Internet and other technological advancements. This is the digital commons, which were initially embraced by open-source software projects such as Mozilla Firefox, Linux, GitHub, Apache and so on. Scholars such as Ramos (2017), Kostakis and Bauwens (2018) and others, hold that the appearance of such initiatives in a period where capitalism prevailed, had as a consequence for many individuals and actors to try to capture the value created by such commoning activities and monetise it for their benefit. This is further explored later on in the thesis.

3 Literature Review

This chapter comprises an overview of the existing literature and theories revolving around, on the one hand the scholarship and practice of digital governance, and on the other hand that of the digital commons. Post thorough online and offline search in renown academic journals, newspapers, academic magazines and books, the chapter concludes with defining the conceptual framework on which the current research bases its foundations, as well as identifying the relevant gaps in the literature.

3.1 From e-Governance to Digital Era Governance

E-Governance emerged as a major transformation in the public sector in recent years, following numerous reform waves in public administration. It has been a result of technological advancements appearing in the last two and a half decades and aided in significant changes in the operational, as well as the structural and strategic functions of governments around the globe (UNPAN, 2008). "From a practical perspective many governments have identified the value of interacting electronically with key stakeholders, and undertaking a variety of e-government projects. These projects are identified at a variety of levels" (Joseph, 2013, p.436). According to Navarra and Cornford (2012), researchers have quite extensively explored and examined e-government resulting from the New Public Management (NPM) framework (Christensen 2002; Ferlie 2001; Fortin 2000; Lane 2000; Larbi 1999 cited in Navarra & Cornford, 2012, p.38), as a new reform paradigm (Hood, 1991).

As Lynn et al. (2001) maintain, the notion of "governance" itself does not merely denote the policies, regulations and administrative procedures concerning public goods and services, but also "a dimension of determined norms and rules designed to regulate individual and group behaviour" (Ostrom, 1990, p.136). Therefore, and in other words, governance is also about group-making decisions which affect a wider range of audience beyond the individual level (Lima, 2021).

Electronic government (e-government) comprises the result of a merger of information systems and public administration research (Lindgaren & Jansson, 2013). Significantly, the notion itself encompasses a very narrow interpretation and understanding by scholars. According to Navarra and Cornford's (2012) study, it is often falsely deemed as simply a technical tool which improves efficiency between governmental and citizens' relations – with an emphasis to the fact that citizens are assumed and characterized to be simple customers.

In a similar vein with what Navarra and Cornford (2012) criticise within public administration research, Evans and Yen (2006) hold that the principal purpose of e-government is to facilitate efficient online communications among the government and the citizens (cited in Joseph, 2013). Nonetheless, as presented throughout this chapter, this is not exactly the case, fifteen years later such studies. E-governments are characterized by their ability to reach certain aspects of the society, in order to facilitate relations and other functions. These are directed through different streams to: the populations as government to citizen (G2C), government to business (G2B), government to public sector employee (G2E), and finally government to another part of government as a G2G interaction (Joseph, 2013).

The digital transformation to an e-government was initiated based on a few assumptions and expectations from such a transition. In line with research in public administration and e-governance, scholars such as Hood (1991), Powell (2005), Pollitt (1993), Peckham et al. (2005) and others referred in Navarra and Cornford (2012, p.38), embraced the development of e-government endeavours based on a NPM mindset. These ideas include the hope for efficiency in terms of cost-cutting through redundancies and fewer resources utilised, automated ways of working, less time needed for certain bureaucratic procedures and so on.

Moreover, they claim a change in hierarchical direction with privatization strategies, public tendering and subcontracting the delivery of public services. Accountability was also noted as a supposed benefit of such a reform, since public servants would now have to operate on the basis of systems and software which would be accessible more easily by other actors.

As the authors maintain, e-government was approached by scholars in the past as a technical solution, basically ignoring all other aspects and factors within the public sector environment. The transitional efforts were based on the wrong (or insufficient) type of 'value drivers' inspired by private sector managerial models in entirely different contexts. "From this perspective, the advantages offered by e-government imply significant change in the structure of the public sector as well as a reorientation of the management approach (Burn and Robins 2003; Moon 2002), but tend to ignore the wider politics" (Navarra & Cornford, 2012, p.39).

In addition, other critics of the NPM model argue that its extreme adoption over the last three decades without any prior evaluation, has resulted in a surge in bureaucracy instead of enhancing efficiency and effectiveness in public service delivery. Along the same lines,

Dunleavy et al. (2005) (cited in Navarra & Cornford, 2012, p.23) hold that this increased level of bureaucracy has achieved even larger costs. In defending digital transformation within the governmental sphere, they argue that such a transition to a "digital era governance" implies cohesiveness and agility. Navarra and Cornford (2012) therefore suggest that technology can also act as a restructuring tool of a government, helping in improving its organizational capacity.

Yet, recent literature argues about the dynamic capabilities of the public sector, as made especially relevant during the past year and a half where a pandemic has revealed numerous drawbacks in how governments operate. This is an aspect which is also directly related to digital era governance through the provision of digital public services. As maintained in a topical paper by Mazzucato and Kattel (2020), agility and resilience increasingly rely on specific capabilities (Drechsler & Kattel, 2020 cited in Mazzucato & Kattel, 2020), particularly amid crises where governments are required to respond timely and effectively to such emergencies. The authors hold that even if the subject is deemed as extremely vital to any governmental strategy, these capacities are "not only missing in reality, they are also missing in the theory about government" (p.260).

Public-sector capacity is usually outlined as "the set of skills, capabilities and resources necessary to perform policy functions, from the provision of public services to policy design and implementation" (Wu et al., 2018 cited in Mazzucato & Kattel, 2020, p.260). In their paper, the two scholars conclude that targeted research on the matter indicates a clear emphasis by governments on external reliance on dynamism. As a result, and consistent with Pazaitis et al. (2020), the public sector is increasingly observed to be relying on 'heroes' who are deemed as saviours of specific issues, i.e. single leaders in driving structural and strategic change (Ongaro & Ferlie, 2020 cited in Mazzucato & Kattel, 2020). Hence, "the capacities associated with the public sector tend to be narrow and focus on stability" (p.260).

As Mazzucato (2018) further maintains, there is a misconception prevailing amongst public governance theorists which withholds the full potential of dynamic capability-building within the public sector. Specifically, governments have been perceived as market-fixers, expected to step in whenever there is a financial or other market crisis, saving banks from bankruptcy and so on. Buchanan (2003) (cited in Mazzucato & Kattel, 2020) also argues that a government should aim at being as efficient as the private sector. Nonetheless, such rigid structures will not allow for co-created value stemming from investing into the internal capacity of the public sector (Mazzucato, 2018; Ansell et al., 2021).

Similarly, in their study, Navarra and Cornford (2012) place attention on the importance of developing more competent public organisations and provisions which will in turn enhance their potential to deliver better-designed and innovative services.

Their paper can be regarded as a thought-provoking one if we take into consideration the fact that it was published almost a decade ago, as they pose an alternative perspective on how digital government should be approached and understood. They pose the argument that perceiving the potential of e-governance as limited to efficiency improvements, neglects the underlying and hidden opportunities to enhance innovation within the public sector, as well as to benefit the wider society through strengthening social welfare. This argument therefore comprises a principal foundation for the present thesis, as an alternative paradigm capturing the real value along these lines is explored through this research.

Correspondingly, in order to successfully achieve digital maturity in government, OECD (2019) recommends having in mind six policy dimensions, as part of the OECD Digital Government Framework (see Figure 2).

1. From the digitisation of existing processes to **digital by design**:

   Government approaches "digital" with an understanding of the strategic activities involved with successful and long-lasting transformation. They take into account the full potential of digital technologies and data from the outset in order to rethink, re-engineer and simplify government to deliver an efficient, sustainable and citizen-driven public sector, regardless of the channel used by the user.

2. From an information-centred government to a **data-driven** public sector:

   Government recognises data as a strategic asset and foundational enabler for the public sector to work together and uses data to forecast needs, shape delivery, understand performance, and respond to change.

3. From closed processes and data to **open by default**:

   Government is committed to disclosing data in open formats, collaborating across organisational boundaries and involving those outside of government in line with the principles of transparency, integrity, accountability and participation that underpin digital ways of working and the *Recommendation of the Council on Open Government* (OECD, 2017b).

4. From a government-led to a **user-driven** administration, that is, one that is focused on user needs and citizens' expectations:

   Government adopts an approach to delivery characterised by an "open by default" culture and ambitions of "digital by design" to provide ways for citizens and businesses to communicate their needs and for government to include, and be led by, them when developing policies and public services.

5. From government as a service provider to **government as a platform** for public value co-creation:

   Governments build supportive ecosystems that support and equip public servants to design effective policy and deliver quality services. That ecosystem enables collaboration with and between citizens, businesses, civil society and others to harness their creativity, knowledge and skills in addressing challenges facing a country.

6. From reactive to **proactive** policy making and service delivery:

   Governments reflecting these five dimensions can anticipate, and rapidly respond to, the needs of their citizens before a request is made. They also proactively release data as open data rather than reacting to a request for access to public sector information. Transformed, proactive, government allows problems to be addressed from end to end rather than the otherwise piecemeal and reactive digitisation of component parts.

Source: OECD (2018a), *Digital Government Review of Brazil: Towards the Digital Transformation of the Public Sector*, https://doi.org/10.1787/9789264307636-en, based on the OECD (forthcoming c), *The Digital Government Framework*.

Figure 2 The six dimensions of the OECD Digital Government Framework (OECD, 2019, p.3)

Extremely relevant to the present study's key arguments, are the dimensions which directly or indirectly, have the creation of the public value through various means as their main goal. As widely argued in the public administration literature, public value results from meeting citizens' needs and expectations, via enabling an open and collaborative ecosystem which includes all societal pillars and stakeholders (OECD, 2019).

3.1.1 Digital Public Services

Public electronic services (e-services) are one of the most researched functions of an e-government. However, they have frequently been described as vague or confusing as a term in the existing literature.

For the purpose of this thesis, the services provided by a government electronically will be described as digital public services. The concept itself is indeed quite perplexing, as the "e" represents the electronic nature of something, i.e. an object. The notion of a service

however, denoted something immaterial. Therefore, the merged concept could be explored from both perspectives, also creating the third perspective of the wider environment in which a public service exists. Another important factor in how we perceive the concept of digital public services is the recent interconnection of governments with private companies (Lindgren & Jansson, 2013).

Digital public services are therefore mainly depicted through digital platforms which are created by governments in order to ease their citizens' lives in a way. Such platforms afford the convenience to the user of submitting their taxes online in a fast way, accessing their personal health information, or other public services (Mazzucato & Kattel, 2020). Increasing concerns however, revolve around the problem brought by outsourcing such projects to private sector companies. As widely known, private and public sectors do not necessarily share the same motives, mainly due to the fact that the private sector is driven by profit-making (CITE).

Nevertheless, consistent with Chadwick and May (2003) and Navarra and Cornford (2012)'s studies, digital platforms built for governmental purposes are likely to improve efficiency and support decentralisation, against the various drawbacks of bureaucracy and red tape. In turn, Mazzucato and Kattel (2020) hold that in order to fully exploit the potential of these platforms, governments will require to think of how to utilise data to their and the wider society's benefit through trials in delegating ownership elsewhere.

The authors refer to the example of innovative transportation platforms such as Uber or Google Maps, which basically fund themselves through the tax-payers' capital. Therefore, they suggest an alternative way of using such important data collected, for example in favour of identifying traffic patterns, or improving public transportation services according to the users' habits. A very recent example relating to this suggestion, is that of various cities utilising the public transportation's users' data to improve their service frequency, in order to minimise the spread of COVID-19 – i.e. adding more buses during rush-hour in Swedish cities so that people would not be overcrowded (CITE).

Chadwick and May (2003) suggest four models through which the state of governance is portrayed according to how e-government influences policy, service delivery and political and other rationalities. The models suggested are: the managerial model based on NPM, the consultive model, the participatory model and the disciplinary model. As aforementioned, through the managerial model, attitudes based on NPM prevail, as for example the way in which citizens are perceived by the state. The centre of attention is

significantly directed towards citizens as consumers, limiting the relations between polity and government to solely transactional ones (Navarra & Cornford, 2012).

Whereas participatory governance is aiming towards involving the citizens more through ways beyond simple discussion. In strengthening the democratic representational aspect, the authors suggest great attention given to non-profit and volunteering organisations, and other individuals who seek engagement within policy- and decision- making processes. Part of this model addresses also the significance of service delivery in enhancing democratic dynamics within the state. Lastly, the model looks into legitimacy and political participation as important enablers of such a framework, too (Cordella, 2007; Whitley & Hosein, 2009 cited in Navarra and Cornford, 2012).

In another perspective, Mazzucato & Li (2020) view public services as 'public options'. These entail the goods and services which are provided by the state, simultaneously checking their quality, availability and readiness, and affordability amongst goods produced by the private sector. As the authors maintain, this notion of public options can be implemented in a wide variety of services, as for instance public health care, education, retirement, banking, innovation and so on. "Indeed, the use of public options for sectors driven by fast innovation is developing into an exciting new area of policy" (Mazzucato & Li, 2020, p.1).

3.2   Collaborative Democracy and its Limits

Sekera (2018) argues that governments should rethink their relations with the citizens. Especially in turbulent times or recessions, the citizenry might appear as hesitant to trust their government, threatening to stop adhering to the rules, and refusing to accept new norms and value brought by such grave changes in the wider environment. As the author suggests, public administrators and leaders must aim in building inclusive policies, by directing their efforts towards engaging citizens and inviting them to contribute to shape these policies and subsequently the society in which they live in. By facilitating co-creation, governments could enhance the polity's trust through ensuring transparency and accountability, as well as expose the citizens to the complexities that the public sector entails when invited to solve a problem (Stoker, 2006; Rosanvallon, 2011 cited in Sekera, 2018).

Following the critiques on NPM-led e-governance, Bastick (2018) argues that the use of the Internet has not contributed towards strengthening democracy in public institutions either. As discussed earlier in this chapter, the novel appearance of e-government was aimed at using digital technologies and means to endorse a transparent, accountable,

citizen-centric, responsive and convenient public sector. Nonetheless, as scholars argue, these attempts to improve and adapt to the new external environment have proved unsuccessful in fundamentally transforming the government, and especially towards strengthening the foundations of democracy (Bastick, 2018; Navarra & Cornford, 2012).

As it is increasingly observed over the last decade, a general shift away from NPM (Drechsler, 2005, Levy, 2010, Lynn 1998) is followed by an attempt to implement democratic practices within an array of sectors. This is depicted through efforts towards the concept of value co-creation, in which principally, an organization and its clients or users participate in "a process of creative problem solving through which relevant and affected actors work across formal institutional boundaries to develop and implement innovative solutions to urgent problems" (Sørensen and Torfing 2018, p. 394 cited in Rösler et al., 2021, p.1).

Similarly, in the context of public services, public management literature holds that value co-creation is achieved via two routes. One involves the process in which a variety of stakeholders engage in collaborative activities with an aim to improve those services or solve a social problem (Torfing et al, 2016 cited in Rösler et al., 2021). The other route comprises the value that is also created for afterwards, i.e. whether by the conclusion of the specific service delivery, a certain valuable attribute is left for the society (Hardyman et al., 2019 cited in in Rösler et al., 2021).

Sørensen et al. (2021), as well as McBride et al. (2019), define co-creation as "the process through which a broad range of interdependent actors engage in distributed, cross-boundary collaboration in order to define common public problems and design and implement new and better solutions" (p.269). As the authors maintain, co-creation entails the notion of also creating public value – as also widely discussed in the literature by other scholars. Nevertheless, there appears to be an important weakness as regards co-creation in the context of ambiguity in what exactly public value encompasses and simultaneously, how this method could aid in dissolving such clashes in understanding (Sørensen, 2020 cited in Sørensen et al., 2021).

Moreover, the authors exemplify this conflict through the various stances of actors involved. Public value for a politician who is guided by their political ideology is quite distinctive to how citizens perceive this value through beholding their own interests, too. The cases within the public sphere are ample, and can therefore be interpreted in a variety of ways. What remains important through is the influence of these interpretations on how

public services are designed and directed to, and how the aspect of collaborative democracy comes in play.

Confusion around what co-creation actually is, is also discussed in recent papers by Arundel et al. (2020), and Lember (2018). The authors mention that governments are more increasingly engaging in co-creation activities, especially in Europe, especially through technological means. Nonetheless, the variety in methods and techniques used across different cases denotes that there is still some ambiguity prevailing in terms of to what extend such endeavours can be classified as co-created and democratic (Arundel et al., 2020). As for example, approaches such as online public consultations cannot be deemed as equivalent to methods like design-thinking or innovation labs where actual co-creation is taking place by citizens who are engaging in collaborative activities.

Consistent with the aforementioned, this lack and confusion is also evident in existing literature around e-democracy in practice, and specifically e-participation.

In their book *European e-Democracy in Practice*, Hennen et al. (2020) present a number of factors which are based on the failure of many e-participation projects. These include the absence of clarity in what participants are required to do, an overall feeling that such initiatives are too government-centric that they miss the point of societal benefit in general, lack of transparency and so on.

As a result, it can therefore be argued that such practices do not capture the entire essence of collaborative democracy on the level that other activities taking place within other sectors do. For instance, the horizontalness underlying the process of collaboration, as well as the shared values and mutually agreed rules seem to make the difference in how peer networks manage to self-govern their projects (Bauwens & Pantazis, 2018). This observation is probably something that is missing from any effort made by the government in attempting to facilitate more democratic processes and involve the citizens more in the planning and delivery of public services.

3.3   Public Value Theory

In their special issue based on the Australian Political Studies Association's *Understanding Public Value Workshop* (2019), Brown et al. (2021) attempt to merge the variety of streams that exist by focusing on the recognition of public value. Evidently, and very similar to the concept of e-participation, 'public value' also appears as a problematic definition with no single way of understanding or interpretation within the field of Public Administration research (Brown et al., 2021 & O'Flynn, 2021). Within public administration practice, this idea initially alleged by Marx that "contributing to

"the common good" is an admirable pursuit" (Brown et al., 2021, p.803), is widely reviewed "in terms of the public interest, public good and more recently, public value and how to create it" (p.803).

The concept as defined according to Moore (1995), entails the "citizens' collective expectations in respect to government and public services" (Twizeyimana & Andersson, 2019, p.167). Here, 'citizens' denote the variety of stakeholders, such as civil servants, policymakers, users of the services, tax-payers and everyone else directly or indirectly involved (Castelnovo, 2013 cited in Twizeyimana & Andersson, 2019) in collaborative negotiations.

Moore (1995) suggested the so-called 'strategic triangle', in order to help government officials and public leaders to plan their decisions accordingly, in an attempt to engage in public value creation (Brown et al., 2021). The strategic triangle is comprised of three pillars: public value, legitimacy and authority, and capabilities. Thus, it demonstrates that whenever a certain strategy is supported by democratic legitimacy, and simultaneously the government itself is in possession of the required set of capacities and capabilities, then the implementation of that strategy would become reality. The effective outcome would also entail the creation of public value (Yotawut, 2018).

Kavanagh (2014) also presents the notion of public value in the stance of how governments may distress fundamental civil and democratic principles, including openness, transparency, accountability, equity, participation and social responsibility (cited in Yotawut, 2018, p. 169).

Twizeyimana and Andersson (2019) further argue that public value could also be re-thought and re-organized in a way that does not lead to destruction. "We need to consider whether, in a world of competing demands on fixed budgets and resources and divergent groups and interests, it is possible to create public value without diminishing value for others" (Brown et al., 2021, p.805).

For the purpose of this research, public value will be defined according to the IIPP strand of thought. As Mazzucato and Ryan-Colins (2019) argue, the concept was initially utilised and developed by the public administration and public management academia in order to attempt to perceive the state as not only a market-fixer and reactive according to the economy's condition. The term in practice, revolved around directing efforts towards the ways in which public leaders and servants could manage the trade-off between internal efficacy and democratic practices involving citizens in policy-making. In an attempt to go beyond this, the authors propose that public value "is created by public sector actors

creating and co-shaping markets in line with public purpose" (p.1). Therefore, this version of the term connotes the importance of the whole society in creating value, through collectively solving issues and enhancing the well-being of all stakeholders.

As stated by Sørensen et al. (2021), "government governs and society is governed" (p. 268). The traditional model of government has been that of a bureaucratic one, where democratically elected politicians determine the public value and civil servants implement decisions through the provision of public services. In this model, public value is perceived as an activity that is performed "in-house" by government actors and even though society and the marketplace are also involved in the production of value for society, this value represents private interests and only serves specific individuals. Therefore, the creation of public value is dependent upon a distant relationship but of equal bargaining power between public and private sectors.

Interestingly, and in line with the aforementioned point, Coffey (2021) (cited in Brown et al., 2021), contributes to the public value scholarship by exploring the issue in terms of its possibility to promote sustainable development.

In another recent paper, a literature review on the public value of e-government specifically, was conducted by Twizeyimana & Andersson (2019). Resulting from their research, six values were identified in the scholarship (Figure 3). Post-analysing fifty-three articles, they hold that one of the main three dimensions which add value is that of improved public services. The authors also mention a profound lack of research in the specific field of public value creation in e-government, even though they mention that technology implementation methods are based on perceived values by the actors involved (Bannister & Connolly, 2014 cited in Twizeyimana & Andersson, 2019).

Improved Public Services	Improved Administration	Improved Social Value
	- Improved administrative efficiency - Open Government (OG) capabilities - Improved ethical behavior and professionalism	- Improved trust and confidence in government - Improved social value and well-being

Figure 3 Generalization of the six dimensions of the public value of e-government into three main dimensions (Twizeyimana & Andersson, 2019, p.170)

Cordella and Bonina (2012) (cited in Twizeyimana & Andersson, 2019) argue that public value could be the most prolific way in which social and political impacts could be

addressed as affected by digital transformation efforts in the public sector. As the authors uphold, the generic public value framework "proposes public sector reforms as composite outcomes of socially shared expectations of fairness, trust and legitimacy, whose effects would depend on the social and political context in place" (Cordella & Bonina, 2012 cited in Twizeyimana & Andersson, 2019, p.168).

Similarly, Bryson et al. (2017) argue that separate and joint public value created in the public sector leads to agility and cohesiveness. This is ensured by an amalgamation of formal and informal actors, such as policy makers, public managements, private companies, and the voluntary and informal communities. The scholars however, note that one of the challenges might be lying within the centre of the strategic triangle, therefore implying that there might be underlying complex interactions taking place which go beyond the public manager as the subject of concern.

As aforementioned, Mazzucato & Li (2020) hold the stance that public value creation theory fails to address the importance and reality of the state as a contributor, while focusing on how external actors (such as the private sector) contribute to value creation. Their concept of public options attempts to address this misconception within public value theory by emphasising the fact that public value is created collectively, but not enjoyed in equity by everyone who contributed.

In a similar vein, Bryson et al. (2017) refer to the wide array of problems that would require tackling in order to achieve a more universal theory of public value creation which takes into account the aforementioned dynamism as described by Mazzucato and Li. As they maintain, the revised theory would have to consider the multiple actors included, the aspect of co-creation and other types of collaboration between organisations, and most importantly "that public value can be both an end and a means" (p.643).

In an attempt to address this complexity, they re-create Bryson, Crosby and Bloomberg's (2015) public value governance triangle, based on three main questions:

- Who or what is in the centre of the strategic triangle?

- How can multiple actors, levels, arenas and/or spheres of action and logics be accommodated within the strategic triangle?

- How can the strategic triangle be adapted to complex policy fields in which there are multiple, often conflicting organizations, interests and agendas? In short, how may politics be more explicitly accommodated? (Bryson et al., 2017, p.643)

Bryson, Sancino, Benington and Sørensen's (2017) new representation is displayed in Figure 4 below. The earlier version (Bryson et al., 2015) is in turn built according to Moore's (1995) initial strategic triangle, which greatly fails to address any other aspect of the ecosystem apart from the public leader. As a result, Bryson et al. (2015) attempted "to adopt the strategic triangle to more complex multi-actor, multi-organisational, multi-sector context", to better suit and reflect the dynamics underpinned in the broader environment (Bryson et al., 2017, p.645).

The specific public value governance triangle is comprised of five key concepts and can be found in Appendix A. Nonetheless, Bryson et al. (2017) criticise the particular triangle for not addressing the ways in which the public sphere could be improved, as it comprises part of the wider environment.

The proposed framework, includes in its centre, the strategic triangle by Moore (1995). The triangle is composed of three points, and demonstrates that whenever a certain strategy is supported by democratic legitimacy, and simultaneously the government itself is in possession of the required set of capacities and capabilities, then the implementation of that strategy would become reality. The effective outcome would also entail the creation of public value (Yotawut, 2018).
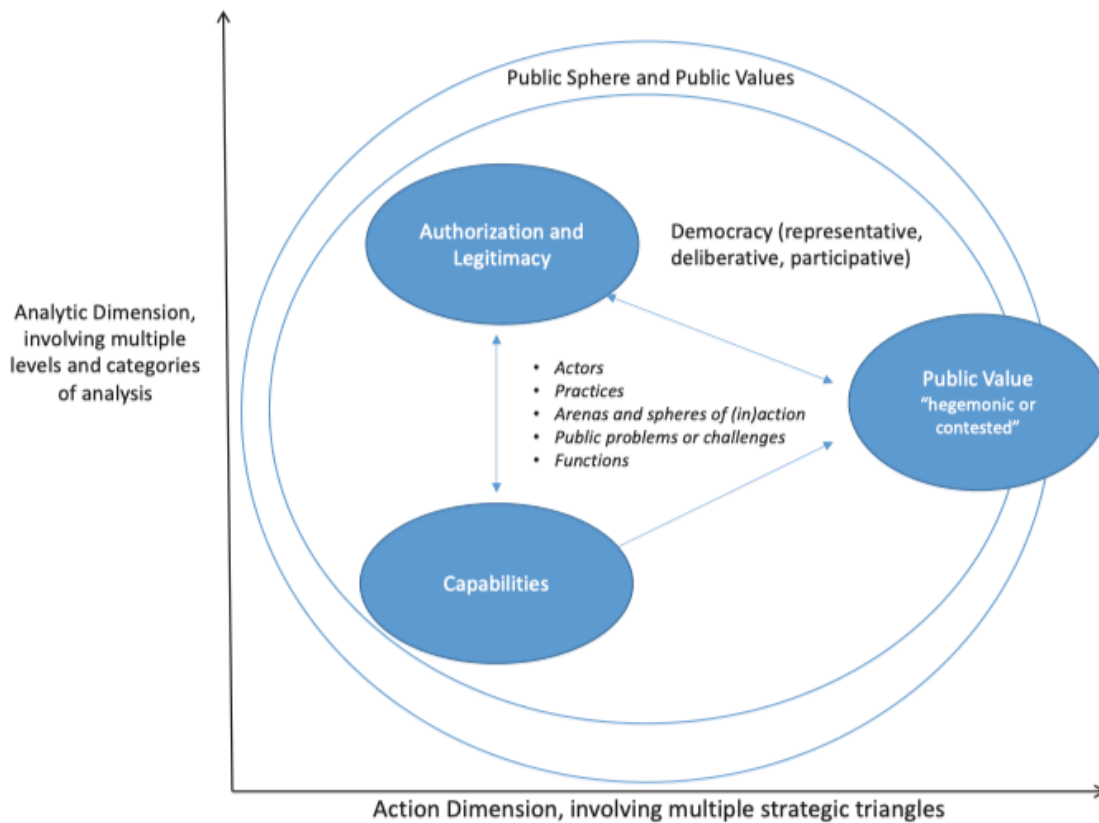
Figure 4 New representation of the public value governance triangle (Bryson et al., 2017, p.647)

The revised model by Bryson et al. (2017) differs in its elements, as it also addresses the co-existence of multiple strategic triangles within the same public sphere and denoting different public values, according to the analytic dimension taken by the researcher. As the authors maintain "attending to levels is important because levels often are built into constitutions, legislation, regulations and funding arrangements" (p.645), besides the wider social actors and dynamic relationships interacting.

The middle of the triangle often reflects the overlapping outcomes, events or procedures taking place which are subject to more than one pillars of the triangle, mirroring the complexity of social realities.

Especially as regards the variety of actors involved in the case of collaboration through any means, "a multi-actor approach to public value draws attention to the multiple logics in play as part of the reasoning characteristic of different sectors, roles and practices" (Saz-Carranza & Longo, 2012 cited in Bryson et al., 2017, p.646). Overlapping stakeholders might include the government itself, private sector entities, citizenry and so on, as well the specific functions of a government, i.e. public service delivery, legislation, crisis management. Most importantly, the model also reflects the wide range of

worldviews within public administration, in addition to the variety of democratic systems and paradigms (Bryson et al., 2017).

In a similar vein, Lember et al. (2018) maintain that this change in how we perceive such important concepts is highly needed. The author also argues about the effect of institutional settings on how public and private organisations operate and are given certain limitations or opportunities. A variety of different systems coming together and causing a battle between rules, could in turn change the landscape entirely, leading to the "de-legitimization" (Coriat & Weinstein, 2002 cited in Lember et al., 2018, p.6) of out-dated standards and the de-institutionalization (Oliver, 1992) of the frameworks and bodies that are not needed in a contemporary society.

3.3.1 Bridging the gap using a different perspective

Stemming from the literature in public administration, the underlying misconception of the state being unproductive and lacking in efficiency prevails in many studies and mindsets (Sekera, 2018). This false assumption is also adopted by the wider society, thus setting the responsibilities of a government only to the point that they can act as market-fixers, but not producers themselves, thus outsourcing a lot of its functions to the 'more efficient and productive' private sector. In turn, the reputation of a government was severely damaged in limiting its potential and declaring it as 'broken' (Bruni, 2014; Luntz, 2014; Schuck, 2014; Teles, 2013 cited in Sekera, 2018, p.15).

Evidently, citizens' expectations regarding the way they use and experience services provided by their government, are constantly rising due to the high customisation which exists in the private sector. The OECD (2019) refers to the models created by private companies such as Amazon, Uber, Airbnb etc. These digital platforms base their competitive advantages over other rivals in their category, on user friendliness, accessibility, convenience, efficiency and so on. However, governments provide their services in a different setting and with a different outlook, too. Since they are not directly (or even at all) competing with other entities, they often disregard the user-driven perspective.

Although one might argue that these expectations need to be met by governments as well, scholars such as Bauwens, bring another perspective into the picture. As they widely discuss, the aforementioned service delivery models are not ideal. The OECD (2019) describes the digital era as the age of interactive collaboration. Similar to how private companies engage their clients and users in collaborative activities, governments attempt to approach citizens in order to tackle public problems collectively, and in turn citizens

among themselves work together and distribute goods and services produced – what they phrase as the "shared economy".

Subsequently, digital commons are a form of collaborative organisation between individuals, or 'peers' fulfilling the purpose described by the OECD (2019). Therefore, it could be argued that such paradigm could become the new mode of governance and production across the whole society and public sphere (Bauwens & Pantazis, 2018).

In order to successfully adopt such practices, OECD (2019) suggests that the public sector must change its ways of working, but first and foremost the cultural norms which persist. A wider sense of collaboration and co-creation needs to be embraced by both the internal environment of the government, as well as the external, without compromising the potential of the public sector to become a true innovator and sustainable value creator. As the OECD (2019) maintains, user-driven approaches are the way forward – also consistent with other scholars across different economic and governance research streams.

O'Reilly (2010) (cited in Eaves et al., 2019) argued that tech giants such as Apple and Google – who in fact act as competition-driven recreators of content, instead of producing of novel content themselves – propose a strong example of re-imagining government. This entails efficacy in the means of planning and creating public goods and services by building platforms instead, which facilitate a hyper-connected system reaching every stakeholder in a society. Such a transition would remove bureaucracy and silos that have existed in government throughout the years. As further argued, a platform-based government "generates better services for less money and with greater accountability" (Eaves et al., 2019, p.128).

Moreover, Michel Bauwens (2013) enhances the aforementioned arguments by presenting their contrasting view on the value-extractive nature of certain giants in the markets. And since the public sector has already widely adopted strategies from the private sector, such a point of argument suggests rather a warning to public administration scholars and practitioners. The theorist perceives this phenomenon as 'netarchical' capitalism, maintaining that the value brought by the commons is more substantial.

As described, such closed business modes, labelled also as 'a new digital feudalism of centralized network data' (P2P Foundation, 2017) or 'netarchical capitalism' (Bauwens, 2013) exploit their product, which in the tech giants' case is the users themselves. As Bauwens (2013) maintains, the entire value created by the users is extracted by companies (such as Facebook and Google) for their own benefit and profit. In turn, nothing of that

exchange value is left to flow back into the use value which creates the desired community.

3.4   Emerging Digital Commons

Digital commons appear as a form of a socially innovative use of the Internet, comprised of geographically dispersed communities or networks, connected through various technologies. Kostakis and Bauwens (2018) associate the digital commons to how flowers and plants grow. "The flowers and the stems of the plant can be thought of as commons, representing non-rivalrous resources (the more people who draw from the resource, the more the resource is strengthened. These commons can be expanded upon, re-purposed and modified for specific situation and contexts" (p.9). This denotes that the more peer contributors the better, as well as that nothing that gets collaboratively created does not go to waste.

Just like most other types of commons, digital commons are a form of commons-based peer production (as also mentioned in the Research Background chapter), where through new forms and institutions, value is co-created. As proponents of the commons hold, such ecosystems are comprised of three different levels – namely, the productive community, the entrepreneurial coalition and the for-benefit association (Kostakis & Bauwens, 2018).

Such type of peer-production are based on building and managing knowledge via the usage of immaterial resources. Ramos (2017, p.82) suggests that the most common examples include:

- free software based on open-source technology and code

- open access knowledge databases and resources, such as scientific journals

- genetics/ biological knowledge in pharmaceuticals

- the creative commons, i.e. Wikipedia

- relating and sharing platforms (Airbnb, Facebook etc.)

However, it is worth to be noted that commons proponents, such as Kostakis, Bauwens, Benkler etc., disagree with sharing platforms being part of the general commons theory. As discussed earlier in the present thesis, these types of models are not created for the common good, but for the benefit of certain shareholders.

Figure 5 below presents five of the most prominent and successful examples of CBPP initiatives, adapted from Kostakis and Bauwens (2018).

Productive Community	Linux	Mozilla	GNU	Wikipedia	Wordpress
Enrepreneurial coalition	e.g. Linus	e.g. Mozilla	e.g. Red Hat, Endless, SUSE	e.g. Wikia company	e.g. Automatic company
For-benefit association	Linux	Mozilla	Free Software	Wikimedia Foundation	Wordpress

Figure 5 Five of the oldest and best-known commons-based peer production ecosystems (Kostakis & Bauwens, 2018, p.5)

Consistent with Kostakis and Bauwens (2018), other examples of open-source software initiatives which are listed in Figure 6, include Enspiral, Sensorica, Farm Hack etc. They pose also the important aspect that apart from producing knowledge through the digitally connected networks of peers, they additionally use the immaterial goods created to manufacture and produce physical products in various dispersed locations. This phenomenon is also known as 'cosmo-localism'.

More specifically, Enspiral offers complex service with the Loomio platform enabling participatory decision-making. Sensorica deals with the design and setting up of sensors, whereas Wikihouse with the design of sustainable housing and Farm Hack with the participatory design of agricultural machinery. All of these software initiatives are characteristic of and represent the institutional structure of digital production (Kostakis & Bauwens, 2018).

Productive community	Enspiral	Sensorica	Wikihouse	Farmhack
Enrepreneurial coalition	e.g. Loomio ActionStation	e.g. Tactus Scientific Inc	e.g. Architecture OO, Momentum Engineering, Space Craft, Ltd.	e.g. Open Shops
For-benefit association	Enspiral Foundation	Canadian Association for the Knowledge Economy	Wikihouse Foundation	Famhack nonprofit

Figure 6 The emerging commons-based peer production ecosystems (Kostakis and Bauwens, 2018, p.5)

Moreover, the P2P Foundation's scholars (2017) suggest that P2P can present a way to allocate resources without requiring any reciprocity between individuals, i.e. it will enable individuals to develop their own software based on existing pieces of software distributed under GNU General Public License only if in the end they allow their final products to be accessible under the same kind of license. P2P may have the advantage of providing crucial functionalities to the commons through the collaboration of people who use P2P networks, but its importance lies in the the non-hierarchic and non-coercive relations it represents which could fundamentally convert society into one big co-operation.

In theory, open value networks (OVNs) comprise of "more trustworthy systems", where "genuine communing and user sovereignty" "could soon enable digital commons – and hybrid forms of user-driven markets – to surpass the value-creating capacities of conventional open platforms" (Bollier, 2016, p.74).

The collaboration of people in public science, however, presents a conflict that lies in the control and profit of such innovations. The emergence of companies such as Facebook, Amazon and Apple have altered the traditional economic landscape of power and have contributed to the rise of 'netarchical capitalism', as Michel Bauwens calls it (Ramos, 2017, p.82).

This newly formed hypothesis of 'netarchical capitalism' claims that a new segment of the capitalist class, owners of financial and other capital, no longer depend on the ownership of intellectual property rights or media vectors but they rather focus on developing and controlling participatory platforms. On the contrary, netarchical

capitalism can be opposed by people and states who believe that both practically and ethically, ideas, knowledge, and collaboration should be part of the commons and their value should not be captured by private interests. It is expected that communities and states will develop alternative range of platforms that will promote "platform cooperativism" and will reinforce alternative controlled commons based platforms (Ramos, 2017).

Articles about peer-to-peer networks mostly explore how distinctive contributors organise their production towards sustainability (see Pazaitis et al., 2017), or the set of rules observed in common pool resource problems (see Ghorbani & Bravo, 2016)), or how to share knowledge globally but manufacture locally according to certain needs (see Kostakis & Roos, 2018) and so forth.

Traditional non-governmental organisations and volunteering associations operate on the concept of "perceived" scarcity and focus on identifying and solving problems, whereas for-benefit associations operate with the belief of abundance. While they recognise the existence of problems and issues, they believe that there exist enough contributors willing to solve them. They promote cooperation and allow communities and entrepreneurs to engage in "commons-based peer production processes" that provide solutions to the problems faced. For-benefit associations have the advantage of protecting the commons through licenses, of managing conflicts between participants and stakeholders and of having the ability (through education and certification) to increase the general capacity necessary for the commons (P2P Foundation, 2017).

Therefore, an acceleration towards a commons-based economy, entails projects and general mindset based on three factors:

1) Free – open and shareable, and fairly accessible by anyone
2) Fair – ensuring social cohesion amongst all people
3) Sustainable – humans as part of nature, therefore accepting responsibility of one's own actions and preserving all resources (P2P Foundation, 2017, p.17).

The structure of the commons-based peer production system involves productive communities and entrepreneurs and the for-benefit associations as the management institutions. This structure however, of a productive civil society needs to be protected by a "partner state" where public authorities would play a sustaining and invigorating role. This form of a "partner state" would, as Bauwens claims, "protect the infrastructure of cooperation that is the whole of society" (Ramos, 2017, p.82). States which do not support

a coherent policy will see approaches that are built ad hoc in competition with the existing rentier capitalist systems, whereas in federations that articulate this approach, such as Bologna, value capture and commons-based management will be accelerated (P2P Foundation, 2017; Ramos, 2017).

3.5   Summary and Gaps in Literature: the potential of Digital Commons

Returning to the beginning of the chapter and conceptual framework, NPM historically appeared as a consequence of neo-liberal economics, resulting to a reinvention of governance based on market-based systems and private sector practices (Hood, 1999).

Subsequently, the development of electronic communication systems led to the adoption of such technological tools by governments over the last decade of the twentieth century. Scholars argue how this evolution was palpably mis-used (Navarra & Cornford, 2012). Instead of harnessing the new potential to timely communicate with other parts of the world towards the common good, states and other powerful stakeholders exploited this new dimension towards maximizing global capital investments, private industries and exploiting the global stock markets (Ramos, 2017) – which then led to major market crushes and financial crises (see Perez, 2020).

Resulting in many failures, recent literature argues in favour of new forms of legitimacy, monitoring and exploiting the full potential of such transition into a digital government (see Navarra & Cornford, 2012). Proponents of mission-oriented public policy and public sector innovative practices, such as Mazzucato and Kattel (2020), suggest re-thinking of what public value means, how and where it lacks attention, and eventually including the citizen into the public sphere.

Therefore, the citizen is imagined as a co-producer of value, helping in transforming the governing structures towards better ones, ensuring social welfare and equity in public goods. Simultaneously, public services are also thought as a source of creating public value, therefore their improvement is also vital (Twizeyimana & Andersson, 2019).

Through a different scholarly stance, Kostakis and Bauwens (2018) hold that non-profit organizations and NGOs are the only ones identifying problems of scarcity and destruction. They in turn attempt in solving those issues via finding the appropriate means or resources. "This approach arguably mirrors the for-profit model of operating" (p. 10). Similarly, this argument could be taken into a different context, i.e. that of how could governmental organisations and services transform to a different operational mode and mission based on the NGO paradigm.

Another issue arising from the literature on e-democracy and civic participation is the fact that an increasing number of studies examining various cases in practice, indicate the confusion between what co-creation and e-participation actually are (Arundel et al., 2020). Simultaneously, governments appear more and more hesitant to include citizens in decision- and policy-making, let alone in trusting them with self-governance and organisation through commoning.

Also, usual unsuccessful cases of e-participation are based on factors such as the absence of clarity in what participants are required to do, an overall feeling that such initiatives are too government-centric that they miss the point of societal benefit in general, lack of transparency and so on (Hennen et al., 2020)

As a result of both criticisms in the literature, it can therefore be argued that such practices do not capture the entire essence of collaborative democracy on the level that the modern commons claim to do. The horizontalness underlying the process of collaboration, as well as the shared values and mutually agreed rules seem to make the difference in how peer networks manage to self-govern their projects (Bauwens & Pantazis, 2018). This observation is probably something that is missing from any effort made by the government in attempting to facilitate more democratic processes and involve the citizens more in the planning and delivery of public services. Subsequently, the digital commons increasingly persists as a valid transformational alternative paradigm.

An evident lack in the modern commons literature lies in the amount of research which exists, with an apparent 'usual suspect' group of scholars embracing the concept and its potentials. Although there exist quite numerous empirical and theoretical studies around the commons, most of the recent literature examines commoning mainly through data or urban commons (see Kioupkiolis, 2021), and digital commons in the form of hackerspaces (see Kostakis et al., 2015). Also, the vast majority of modern commons literature looks into the economic, organisational and institutional aspects (Papadimitropoulos, 2020) of such practices, but not through the public value lens.

Other studies, such as the one by van Loon and Toshkov (2015), approach open-source software adoption in public administration and discuss it in terms of technology innovation. Nonetheless, consistent with Interviewees 1 and 7 (as later demonstrated in the Findings chapter), these stances are quite over-stressed and out-dated nowadays since the public sector has already advanced quite extensively. In discussing how advanced have been the efforts in different geographical locations in terms of the technical dimension, the authors neglect to address the important aspect of external and internal enablers and challenges beyond the technical aspect.

4   Research Methodology

The previous section reviewed the theoretical framework and literature relevant to the evolution of e-government to digital era government, tied with open and democratic processes in the public sector. It also included an overview of the theory of commons and how it resulted nowadays into possibly becoming an alternative mode of governance, which forms the primary research question of this study. The aim of this section is to outline the research philosophy of the author, which then leads to the appropriate design methodology used to collect and analyse the data relevant to the objectives established.

What results from the synopsis of existing literature and case examples around commons-based peer production, as well as e-government projects, is that very little is known about what can the latter learn from the former, what are the enablers and challenges to implement such changes in the public sector and what other factors should be taken into account for this diffusion of knowledge and practices. Therefore, a well-suited choice for this particular study would be that of an exploratory qualitative research methodology. This will enable a far-reaching and deep understanding of how academic experts in public administration, digital governance, and the emerging fields of peer-to-peer theory and the commoning perceive the two paradigms within the context of public sector innovation. Those perceptions and experiences will eventually respond to the research problem and attempt to inform current theories around the matter.

4.1   Research Philosophy

Research philosophy as a notion, entails the formation of knowledge about a certain phenomenon. This includes the means through which this information is collected, analysed and then reproduced or expended (Bryman & Bell, 2003). While there exist varied approaches to doing or collecting data, Saunders et al. (2009) indicate that these can be perceived as a 'research onion' with five different layers: research philosophy, research approaches, research strategies, time horizon and data collection methods (Figure 7).

According to Grix (2002), the ideal way to go about finding and then answering a research question is through formulating a personal ontological and epistemological position which will in turn shape the way we pose this particular question. Therefore, the research question of this thesis was first chosen before a research method was decided, to ensure its suitability.
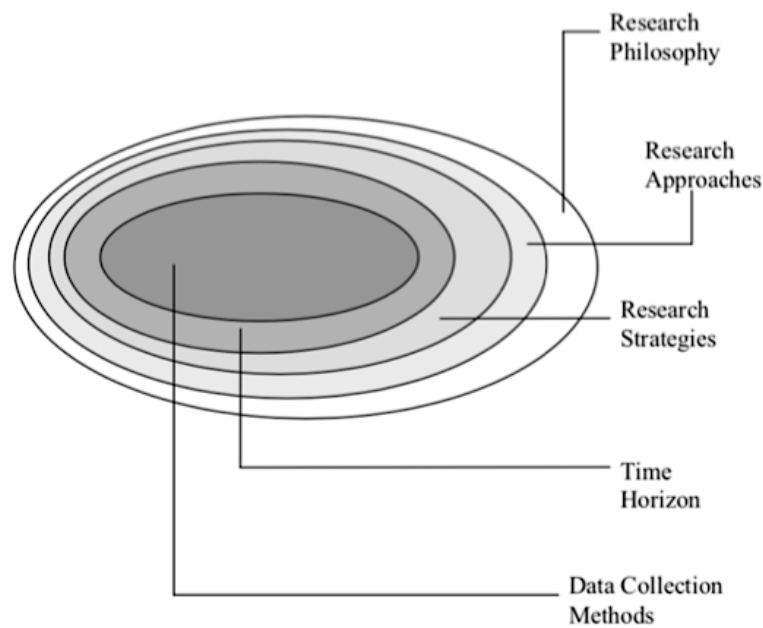
Figure 7 The Research Process Onion (Saunders et al., 2000, p.108)

Ontology deals with how social reality is portrayed, as the foundation of any theory (Grix, 2002). For my research, I adopt a constructivist approach, which is connected with "social phenomena and their meanings continually being accomplished by social actors" (Bryman, 2001, p.16-18 cited in Grix, 2002, p.177). As one might logically argue, the public sector as a sphere, encompasses a great deal of phenomena underpinned by different social interactions. As a result, mindsets, organisational arrangements and values are in constant revision (Bryman, 2001 cited in Grix, 2002).

Subsequently, epistemology investigates what we can learn about these social phenomena which are supposed to be happening (Grix, 2002). Epistemology therefore entails the variety of methods or strategies via which this knowledge is gained and confirmed. Contrasting positivism, interpretivist epistemology appears as "predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action" (Bryman, 2001, p.12-13 cited in Grix, 2002, p.178).

Remarkably, exploring through querying people, the behavioural modes in which they experience certain events or relations within various clusters will lead to diverse outcomes than those of the positivist approach which will appear as expected (Grix, 2002). That being said, my adoption of a paradigm results in a combination of constructivist ontological and interpretivist epistemological positions, as our "lifeworld is defined as the world in which we, as human beings among fellow human beings, experience culture and society, take a stand with regard to their objects, are influenced by them, and act on them" (Schutz, 1966 cited in Goulding, 2005, p.302).

Henceforward, my stance as a researcher entails an element of phenomenology. According to the literature on qualitative research approaches and methodologies, the phenomenological philosophical position holds that life is socially constructed by common sense, without that being the absolute nevertheless. This open-ended knowledge is there for an initial understanding, but remains open for further exploration and development of information (Schutz cited in Goulding, 2005). "Naming requires the interpretative application of a category to the concrete particulars of a situation (Holstein and Gubrium, 1994 cited in Goulding, 2005, p.302).

4.2   Research Methodology and Design

Following the research philosophy discussed in the previous sub-section, methodology involves reasoning in how the knowledge stemming from the research is acquired and analysed (Saunders et al., 2000). Subsequently, the concept of "research design" signifies the appropriate decision-making process towards achieving the research objectives, linking theories, issues, and evidence to be collected, to suitable resources and methods (Flick, 2018 cited in Jaakola, 2020, p.19). Most importantly, the research methodology and design followed should denote truthful and reliable results which respond to the questions posed.

According to my position as a researcher, the most suitable method of collecting data would be qualitative research, based on elements from grounded theory and phenomenology, leading to an interpretivist paradigm (Goulding, 2005).

The present thesis comprises an exploratory research, which according to Stebbins (2008), "is designed to maximize discovery of generalizations based on description and direct understanding of an area of social or psychological life" (p.327), stepping away from quantitative methodologies which are aimed at solely confirming already existing knowledge through measurable results (Sanderson, 2001).

In choosing to adopt a holistic approach to the research problem discussed in the introductory chapter, the purpose is to capture the entire picture instead of solely using a case study or specific location as a setting or the unit of analysis. The holistic approach is in fact one of the objectives underlying this research, since the topic under exploration is a rather new and understudied concept in the context of digital public services.

According to theorists of grounded theory, the nature of this methodology entails inductive research. Nevertheless, scholars also suggest that "the developing theory should direct the researcher to appropriate extant theories and literature that have relevance to the emerging, data grounded concepts" (Goulding, 2005, p.296). Therefore, a common

confusion arises from the belief that induction entails that the researcher is unaware of the field they are exploring, gaining their knowledge thereafter. Nonetheless, in clearing up the misconception, Glaser and Strauss (1967, p.253) hold that:

> *The core categories can emerge in the sociologist's mind from his reading, life experiences, research and scholarship; [furthermore] no sociologist can possibly erase from his mind all the theory he knows before he begins his research. Indeed the trick is to line up what one takes as theoretically possible or probable with what one is finding in the field.* (Goulding, 2005, p. 296)

Consistent with the aforementioned statements, my qualitative approach is characterised by an indictive nature of research, based on the methodology of grounded theory. Henceforward, an initial review in the relevant literature is conducted, before proceeding to the collection of primary data in responding to the exploratory research question posed.

For the purpose of this research question and sub-questions, conducting qualitative interviews was the most appropriate research methodology for a number of reasons. This approach is also consistent with existing literature, as shown in McBride et al. (2019) and Rösler et al. (2021) for example, and as also pointed out by Interviewee 5.

In capturing perceptions as the main strategy for the present thesis, the goal is explore all possible worldviews that exist within academia and directly relate to my topic of research, in order to build a holistic preliminary idea of how the elements explored can tie together within a real life scenario. According to Munhall (?), "perception is like a set of lenses […] (which) evolve from perspectives of location, subjectivity, particularity, history, embodiment, contradiction, and the web of teachings imparted to the individual" (p.606), therefore attempting to learn about the individual's own interpretations of certain phenomena through their experiences.

In line with Steiner (1988), Jaakkola (2020) also maintains that conceptual studies involve drawing upon multiple academic disciplines, different concepts and ideas which in turn result in divergent positions. Therefore, the present study chooses to utilise two main scholarships, through the lens of another theory, in order to discover new insights and grounds in which novel research could base its foundations.

My stance as a researcher entails a few assumptions made for the current thesis and the topics under exploration – not arbitrarily, but because of certain phenomena. First of all, there is the generic idea that social change is highly required nowadays, mainly rooted in events and crises taking place over the last few years. Additionally, my thesis is based on the assumption that the commons can act as an important new paradigm in governance,

as recent literature claims address the important shortcomings of digital governance as it is currently practiced. There still appears a lot of room for improvement in many aspects, but attempting to approach the matter realistically in the sense of what can really be implemented and what can work beyond the theory suggestions is another underlying presupposition. Each research stream entails a different worldview, therefore the present thesis chooses to follow the definition and conceptualization of public value as explained earlier, and in line with the IIPP and Mariana Mazzucato. Last but not least, another assumption evident in this study is the claim that digital public services encompass an important function of any national government, especially shown through recent examples and malfunctions during the outbreak of the COVID-19 pandemic.

4.3   Theoretical Framework

Following an extensive review of the relevant literature, and Steiner's (1988) Methodology of Theory Building approach, the main lens through which this study advances is that of the public value theory. Due to the exploratory nature of the study and the novelty of the objectives, the purpose is to use grounded theory and phenomenological research aspects to reach new theorization levels (Tittmann et al., 2017; Goulding, 2005). The development from an existing theory model to a new theory or model as underpinned by the present thesis through the revision of digital public service provision via a novel approach to the topic, is related to Steiner's (1988) research approach of retroduction as shown in Figure 8 below.
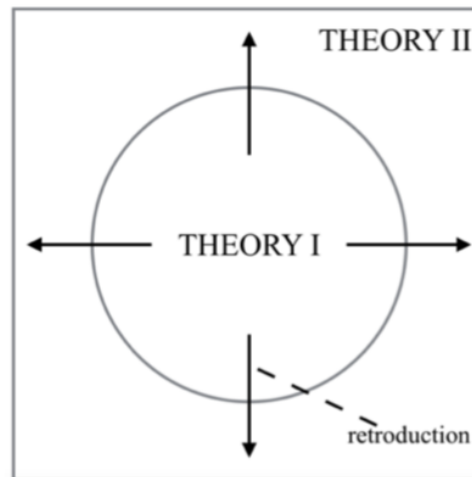
THEORY ——model formation——→ THEORY MODEL ——theory formation——→ THEORY

Figure 8 Theory Models Approach (Steiner, 1988 in Tittmann et al., 2017, p.10)

The current study is set to explore what the digital governance scholarship can learn from an alternative approach – that of the commons. More specifically, the study is examining whether the public value theory lens could be useful towards transforming the flaws of digital governance in its present state, through useful insights from another paradigm, and specifically commons-based technologies. Therefore, the main theoretical framework utilised is that of Public Value Theory which is explicitly described in the Literature Review chapter.

By attempting to adopt the stance of the commons theory, this alternative approach could contribute to the theory and practice of digital governance and to simultaneously embark on a new discourse amongst practitioners and academics. Evidently, examples from both the literature and real life expose a number of limitations in digital governance as it is currently practiced, which inevitably calls for new directions in research and policy-making.

Noteworthy, the evolution of the Internet and communication technology industries, enabled the very recent data revolution to take place. Hyperconnected people and devices forming infinite networks turn such partnerships into "a powerful asset that has awakened utopian dreams of it being a new "public commons" (Lohr, 2013 cited in Rasche et al., 2021, p.548). Of great significance appears to be the latest study by Rasche at al. (2021), as well-timed and appropriate to the objectives of the current paper. Even if in a theme slightly different – that of legitimation of data partnerships for sustainable development

– the authors' analysis is driven by the lack of comprehensive elements which officially facilitate such collaborations.

According to Mazzucato and Kattel (2020), successful crisis management by certain nations against COVID-19 indicates that being organised for any future emergency and acting in agility, requires the investment in governmental capabilities. This also entails the quality of recognising who the real value creators are within the broader societal arena, and include them in planning and designing the future according to public interest and benefit.

As mentioned earlier, public value theory stands as the main pillar for responding to main objectives of the present thesis, and is represented by the revised public value governance framework by Bryson et al. (2017), as adapted and displayed below in Figure 9.
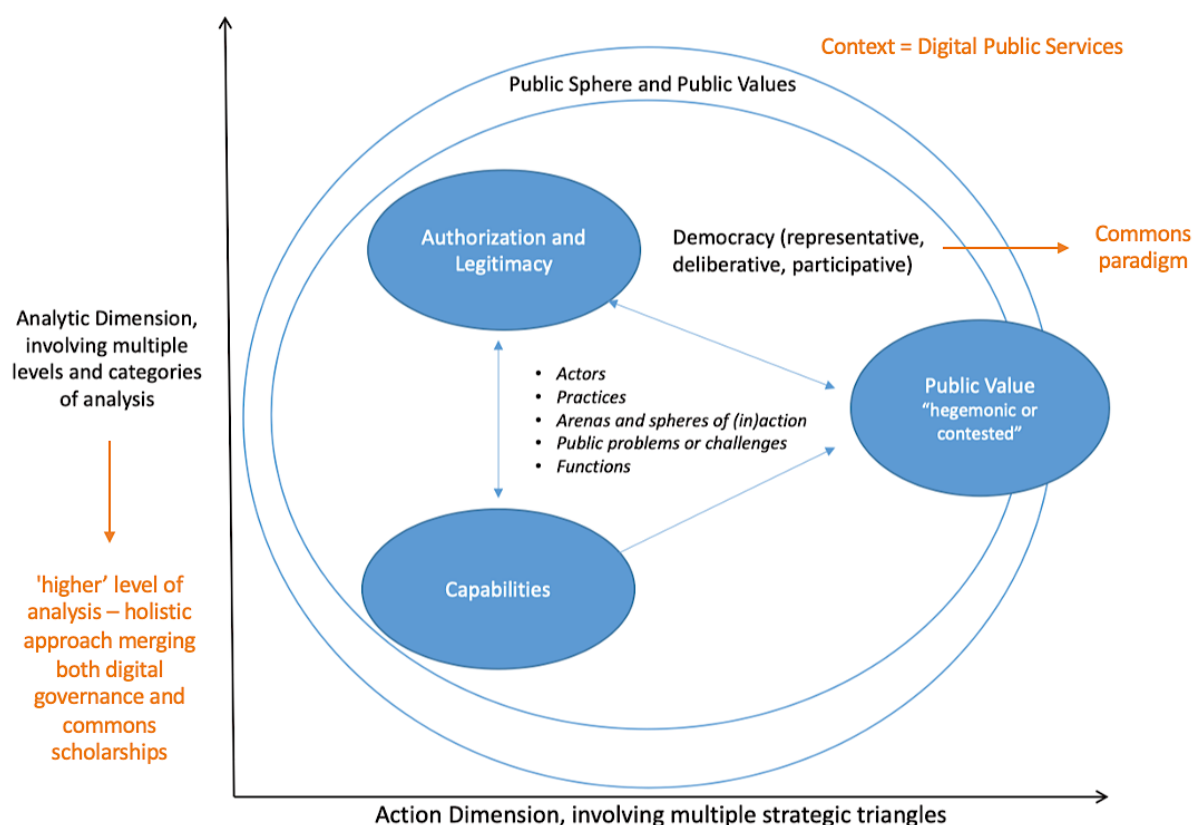

Figure 9 Adaptation of the public value governance triangle (Bryson et al., 2017, p.647)

Due to its generic form and multiple elements, its adaptation to the specific goals and context of the present research was considered as necessary, in order to much the research

problem and questions' needs. Noteworthy, the authors and creators of the revised public value governance framework hold that the model captures the two-dimensional landscape within which public value is created.

The model displays public value definition of the concept as 'hegemonic' or 'contested'. For the purpose of the present thesis, the hegemonic meaning will be assumed to be the lacking one, the term coined by Moore (1995) and other proponents of public value perceived as something that the state (or public leader) should create itself for its citizens. Contrastingly, the contested term and the one adopted by this research, is the concept which includes citizenry as part of the wider public sphere, therefore co-creators of public value.

I acknowledge the fact that both notions of the commons and digital public services entail broadness, and a variety of dimensions, activities and actors involved. As a result, and in line with the selected theoretical framework, I chose to address the research questions through focusing on a higher level of analysis – through the lens of academia.

Through qualitative interviews, I tried to address the main issue identified and explained earlier in the introductory chapter. According to very recent and limited literature (see Mazzucato & Kattel, 2020; Brown et al., 2021; Bryson et al., 2017 and Papadimitropoulos, 2020), the public sector lacks in many of its functions, therefore negatively affecting its performance, potential and promises to the citizens. As a result, the value created is undermined, too. The selected framework which underpins this thesis and subsequently the methods of data collection and analysis, addresses all these aspects which in turn comprise the three generic, main pillars of the model. These are: Public Value, Capabilities, and Authority and Legitimacy.

Most importantly, the selected theoretical model is characterized by its purpose on practical reasoning and further theorization development, and therefore is not intended to be used as a tool by other researchers with the goal of empirical testing or direct application as a guide in practice (Bryson et al., 2017).

4.4 Sampling, Data Collection and Procedure

In line with Morse (1999) and Goulding (2005), sampling in qualitative studies and especially those with an aspect of phenomenology, is required to be purposive, in order to have goal-directed insights according to the research objectives. In the event of random selection, the results yielded would not match the research question(s) asked.

As regards the sampling process in the present thesis, considering Coyle's (1997) recommendations around defining targeted participants prior to beginning the data collection process were followed.

Choosing to ask about different perspectives through a structured manner such as an online questionnaire or survey, or even structured interviews, would most definitely not derive the amount of information received through a semi-structured interview. In fact, "one of the appeals of grounded theory is that it allows for a wide range of data, the most common of which are in-depth interviews, observations, and memos which describe situations, record events, note feelings and keep track of ideas" (Goulding, 2005, p.297).

For the present thesis, the sample size consists of a total of seven (7) in-depth interviews that were conducted over a period of one month. The open-ended, semi-structured conversations took place online, due to the pandemic travel restrictions and variety of locations of interviewer and interviewees. This was conducted in an effort to reveal and deeply explore the point of view of each participant, as well as their distinct perspectives.

Each interview lasted between thirty minutes to one hour, depending on the respondent's availability. They were deliberately selected, consistent with Coyle (1997), according to their research interests and whether they were evaluated as eligible to respond to the requirements of his research based on their personal experiences. Also, the complete profiles of the seven scholars could not be revealed, but their research interests and respective organisations can be found in Table 1 'Summary of methods and data collected' below.

Interviewees had the opportunity through the minimal number and broadness of questions to express their true views and steer the conversation according to their very own ideologies and experiences. This proved as beneficial, as certain noteworthy conclusions could be made through the analysis of their responds, tied with taking into consideration their stance and background as researchers.

A summary of the method followed, as well as the sources of data gathered and their research interests is demonstrated in Table 1 below, prior to advancing to the Findings chapter.

Table 1 Summary of methods and data collected

Methods	Data Collected	Research fields and interests
Semi-structured interview with professor at the IIPP (UCL)	1 interview	Public administration, innovation, digital governance, alternative economic theories
Semi-structured interview with professor affiliated with Ragnar Nurkse Department (TalTech), Harvard Kennedy School and IIPP (UCL)	1 interview	Political Science and Administration, Philosophy, Economics
Semi-structured interviews with researchers at Ragnar Nurkse Department (TalTech) and affiliates of the P2P Foundation	3 interviews	Commons, peer production, degrowth, peer education, technology governance, innovation policy, digital commons
Semi-structured interview with researcher at the Aristotle University of Thessaloniki and affiliate of the commons lab in Heraklion, Greece	1 interview	Commons, peer production, distributed networks, open innovation
Semi-structured interview with theorist and commons activist at the P2P Foundation	1 interview	Technology, peer-to-peer, culture, business innovation

Source: Author's compilation

4.5   Thematic Analysis

As regards the qualitative data analysis, "despite the open and flexible nature of the data that may be used in a grounded theory study, there exist a set of specific principles for analysing and abstracting the information. These include the "constant comparison" method, where, for example, interview texts are analysed line by line, provisional themes noted, and subsequently compared with other transcripts in order to ensure consistency and also to identify negative cases. The next stage is to search for links through the identification of concepts that may go some way to offering an explanation of the phenomenon under study" (Goulding, 2005, p.297).

A variety of themes emerging from what the participants have said were identified, by searching for similar concepts and keywords across the scripts. The specific themes which were noted, based on the theoretical model adopted, include important patterns which reflect the distinctive stances between the experts interviewed.

The next chapter, demonstrates everything that has been claimed up until this point. All the results from data collected are described and interpreted according to the similarities of concepts arising, and the contrasting ones, too. They are categorized in line with the selected theoretical model intended to analyse the variety of perspectives discovered through the seven in-depth interviews. This process goes in line with Glaser and Strauss (1967) assertions around what the last stage of theory development consists of (cited in Goulding, 2005). According to their stance, core categories weave together all the explored concepts, in an attempt to enlighten the nature of certain phenomena.

Moreover, this "should have theoretical significance and should be traceable back through the data" (Goulding, 2005, p. 297), justifying therefore my choice of setting the particular public value framework as the theoretical basis and lens through which the data collected would be analysed. In the last part of the thesis, theoretical deductions stemming from the findings are integrated with existing theories from the literature review chapter in order to demonstrate their relevance or fit in the core concepts, or even extend the initial theories (Goulding, 2005).

4.6 Limitations

An observed methodological imitation is that this comprises a conceptual study, which thus calls for further research via specific case studies or theory testing through practical examples. Nonetheless, a concrete example in practice where a national digital public service is self-governed as a digital commons does not seem to exist to date. Therefore, the present study acts as a preliminary research on the topic, via bridging a variety of perceptions and experiences from academia.

We are currently used to a specific mode of governance, one which resulted from neo-feudal economic theory and essentially NPM. Therefore, the goal of this research is to dig into experts' minds and extract their perception over a new, different perspective on how public services could be organised and provided to the citizens. A different approach, might have yielded a different set of results.

In line with that, specialists in the different branches of study under exploration might have shaped this thesis to being limited to opinions and personal knowledge and

experiences. This entails certain limitations as to how their perceptions may vary from governmental officials or commoners themselves who are directly related to the subject.

The strategy of using interviews covers the discursive aspect of the chosen methodology. However, observation through ethnological methods could enhance the amount and depth of results. Nonetheless, observations could not be used to respond to the specific research question posed, as the object of exploration is non-existent in reality, but only in theory up to the present time.

Although the number of interviews can be seen as small, their in-depth nature allowed for extensive and detailed results reflecting the participants' own views and opinions around the topic of the present thesis. This is also consistent with (Goulding, 2005) and the research methodology selected. Significantly, Interviewee 1 also pointed out that due to the limited number of scholars in the field and the specific choice of a few noteworthy organisations as primary sources of information, interviewing more academics within the same strand of research would encompass very similar or even identical views and argument points.

Lastly, the choice of the public value lens as the theoretical and analytical basis of this research, entails some ambiguity, mainly due to the multiple definitions and dimensions entailed by the term, depending on one's perspective or the object of study itself. To address this issue, the study elaborates on the specific definition adopted throughout the paper in order to avoid any possible confusion to the reader – as also stated and explained in the Literature Review chapter and Theoretical Framework sub-section of the current chapter.

5   Findings

The findings taken from in-depth interviewing of scholars and theorists, as discussed earlier, are presented here. They are categorized in the three main themes according to the new, and adapted version of the public value framework shaped by Bryson et al. (2017). The model supplements and improves the public value governance triangle by adding a two-dimensional aspect to the original strategic triangle, and taking into consideration the complexity of the public sphere as a multi-actor and shared-powered realm. Following the first high-level categorization, numerous segments were coded since they fell in more than one categories, or in sub-categories.

Moreover, they were enriched by direct quotes from the interviewers, but maintaining their anonymity. The interview questions and results also address the three sub-questions which underlie the purpose of this research and subsequently aid in answering the main research question.

One of the main and most interesting observations is the variety of perceptions and perspectives that were noted, which will then be extensively analysed and juxtaposed with the literature review and various theories discussed earlier. The key findings are mapped on the chosen model which comprises the basis of the theoretical framework of this study, in order to draw conclusions and note any gaps which denote possible ambiguity or challenges that might be lying ahead.

Before breaking down the whole set of data into the framework's main pillars, an important insight that came out of the interviewing process is the reference to commons as part of our everyday realities. According to Interviewee 1, public service delivery results mainly from the NPM, as the state acts as the principal provider of services using different means. The fact that there exist two distinctive modalities (i.e. digital governance and the commons), does not necessarily signify that the two paradigms are not compatible with each other.

> *"...anyway there exist many systems of government which are happening simultaneously within a society. A good example is family life, which can be seen as basically commons-based. Each member of the family works in an enterprise where they produce and sell their work and services, which is market-based, so you obviously have a lot of things happening together."* (Interviewee 1)

In a similar vein, strong supporters of the commons paradigm describe:

> *"so this is different from co-production because [in CBPP] there takes place a real partnership"* (Interviewee 2)

5.1 Public Value

As reflected by most participants' statements, value is indeed an ambiguous as a term. However, they hold that it should ideally be interpreted as the benefit received and enjoyed by the citizen, who is regarded as part of the public sphere. The value created by the commons are based on their ability and capacity to enhance the relevance of what the public services are aiming to deliver based on public value. As an example, this would entail the improvement in the quality of life of citizens through more green spaces as demonstrated by the following direct quote:

"Members of citizenry in every neighbourhood are in a position to know best how a green space could be designed collectively in order to be useful and practical for them"
(Interviewee 1)

i.e. sometimes public servants or policy-makers are not aware of the impact of their actions if they are not themselves the direct users or beneficiaries of something.

"For example, there is a counterbalance between the benefit that one receives from the green space against the forty minutes that one will waste looking for a parking spot to get down to work." (Interviewee 1)

The commons could create types of value creation which are more targeted and productive eventually. The way they are organised and operating can achieve more with less resources.

"The commons constitute a dynamic and flexible system that is closer to those who co-create it." (Interviewee 7)

As a result, citizens are not considered as simple consumers or users of public value, but co-creators and contributors to the creation of such values. After all, the term "public", entails every stakeholder in a society, as equal part of it and therefore deserving the same entitlements.

According to Interviewee 2:

"the general kind of theoretical point of view we have is that we must move from a commodity-based value system to a contributory value system. And the reason for this is that commodity value is based on scarcity and extraction, so it has an enormous amount of destruction. It does not recognise positive externalities from non-market goods, as well as the negative externalities of market activity."

A number of scholars mentioned the damage created as we are reaching the ecological limits of our planet. It is increasingly becoming impossible to continue using the current ways of functioning as humankind. Therefore, extending the recognition of value based on collective action will most likely generate positive contributions.

Then, we move to the recognition of value which acknowledges civil society as being productive. Interviewees presented a new vision which has already started showing positive results among peer production communities.

> *"It is not just the companies creating value, because they create circles from value, from extraction, but there appears the need to recognise the value of the other citizens or towards making the city a better place. So it is actually the city as a commons. And every citizen is a commoner who co-produces the city. And that is recognised as value creation."* (Interviewee 2)

> *"...it is not entirely utopian, because we can see that peer production communities already do that in many forms because they want equity. They do not agree that the small group gets, you know, all the value that is collectively produced."* (Interviewee 4)

Besides all the aforementioned, Interviewee 6 emphasised their different viewpoint on public value. In terms of the different framings and issues observed from the public policy perspective, one of the worst things claimed to have happened is that a certain stream of the public administration scholarship has narrowed the role of the state in providing public services.

> *"And so, whenever the citizen as a customer does not receive the services they want, the state does something wrong. But if we realise that the state is more than a public service provider, then the entire equation looks different."* (Interviewee 6)

As also suggested, one of the great contributions of scholars such as Mariana Mazzucato, was to show that the term 'administrative burden' is a wrong way of looking at things.

> *"...because very often the public service creates value, rather than takes it away. Value is not just material things produced by the private sector, and then the state relies on that and adopts the same attitudes. Even if a lot of things are created by the state that are actually beneficial for everybody – e.g. providing healthcare, providing the security insurance, and so on and so on, it also need to realise social welfare."* (Interviewee 6)

In their opinion, participants referred to an impossibly viable world, which entirely works on capitalist interactions. As described, as soon as a crisis comes, people are yelling, and

complaining that efforts by the state are not sufficient, mentioning the COVID-19 pandemic as the perfect example.

"What the current pandemic did to many governments was in fact – through their mis-management and wrong strategies – to dismantle their country together with existing public health systems." (Interviewee 7)

"What the commons theory can add here is that it has another understanding of what life is all about. That we are not only about getting stuff, which is at the heart of public service provision, 'what can I get out of the state', but also what can I do for the state in the sense of sharing, so that in a way, you get to a state to put it very, very primitively as a sharing platform, or something that enables a sharing platform". (Interviewee 6)

Another view on value is given by Interviewee 2 and is tied with the environmental dimension:

"the key idea that we have at the P2P Foundation is that the only way to really drastically reduce the human footprint while maintaining complex services is through mutualisation."

"So that in a way, you get to a state – to put it very, very primitively – as a sharing platform, or something that enables a sharing platform. And here, I very much like Kostakis' notion of the partner state, so that the partnership state almost by definition, provides value." (Interviewee 6)

"For walking to the end, we want to get out of human living together. So this is where I see the connection. And you know, there is a reductionism very often in digital governance, that is about quick, easy and cheap. That's important, but life is not about quick, easy and cheap. I mean, you're only running if you do nott like being where you actually are. So the creation of spaces in which people can put something in and shape their world and communicate with others – that is also something you can add on the digital level. So this is where I see the positive interaction of the elements you're talking about." (Interviewee 3)

5.2   Capabilities

Moving to the second pillar of the strategic triangle, the interviewees made references to how the commons could create new or enhance the existing capabilities of the state. A common misconception mentioned is that main part of the criticism on digital commons is that opponents place them in principle within the volunteering category. Nonetheless,

webservers, such as Apache, are evidently a kind of system on which a large part of the public infrastructure (public websites) is supported.

From the political economy perspective, in such a case or hypothetical scenario (where the digital commons are the new way forward in digital public services), a different public procurement policy exists which does not assume that a company will mobilize to produce software solely to maximize its profit.

"For example, the Greek public procurement authority which has a public procurement platform which is rubbish. where did they do it? they took oracle business suite, translated it with google translate and threw it in a public service where the whole institutional framework of public procurement had to be changed because the platform was based on the American model – which for me is quite funny. then the particular private company packaged it and sold it to four other public services - so because it made sense to maximize its profit, it created a closed product and sold it to various customers essentially according to their business model." (Interviewee 7)

Participants also referred to a certain set of competences that the public sector should possess in order for such practices to be successfully implemented and accepted. Those include: education, agency and motivation towards a public value system within a specific point in time.

"You cannot expect that the public sector will deliver the services and the people will take them as they come. So you have to listen to them what they are doing."
(Interviewee 4)

"What also looks to be an efficient way to do things is an effort to refrain from organising everything from the public sector, but through finding the resources to support the civil society that organises itself. So if the civil society organises itself in non-profits organisations to deliver services, this is going to be more efficient than the state trying to do itself by not being in contact with the 'clients' or the target of the of the action. In this way it will be good if the state can do some things while not exactly outsourcing because it is not like you are paying a company to do a thing, but more or less like you pay the civil society itself to organise properly to deliver the service in a good way." (Interviewee 6)

"The idea is that the commons are the most efficient ways to the distributed networks to organise you know, the work in the digital society. And this is something that we really have a lot of data supporting it." (Interviewee 1)

"What the public services can learn is how to engage people. And they can learn in a way from the bottom-up approach, because what they mostly say is that you have to in order to motivate people, you have to give them some power." (Interviewee 2)

The interviewee continued by describing a case of urban commons, where the community persuaded the municipality to open up the spaces and start a dialogue with social movements. Even if public officials had actively participated, it turned out that when the moment came to actually make some commitments based on what citizens wanted, they were really reluctant. This reinforces the fact that willingness of authorities can also be part of capability building and being ready to accept such changes to how things were done up to now. If authorities are well aware of the benefits, then they can embrace it more easily – which could again be regarded as part of the necessary education.

Another participant stated that:

"it is not entirely utopian, because we can see that peer production communities already do that in many forms because they want the equity. They do not want the small group to get, all the value that is collectively produced. And so they're already practising these contributory dynamics. And so the idea is to extend it to the city as a whole." (Interviewee 2)

Two other interviewees went along the same lines and referred to the Barcelona and Bologna examples of urban commons, where capacity of the city was enhanced through provision of public infrastructure and services mainly by local SMEs and communities.

Another participant suggested the 'design global, produce local' manufacturing model, which focuses on the democratisation and innovation of the system. As an affiliate of a specific foundation, he stated:

"We try to apply such ideas about distributed networks on the commons to organise a network of cities who are using similar economic models for everyone to be independent materially, so that they can make closed loops of circulation of materials in a city, while sharing the information on everything else by collaborating online." (Interviewee 5)

In another perspective, Interviewee 7 suggests that the alternative paradigm of digital commons could also be used in another way by public authorities to enhance their capacity and capabilities. As they maintain, public agencies who are responsible for providing their services online could initially adopt technologies based on commoning,

instead of transitioning to giving full autonomy over those services to groups of peer producers.

"On the one hand we are dealing with processes, i.e. the extent to which the public sector uses technologies and processes that are open and not based on a single, private provider that has those processes closed. I think in these cases it is more or less obvious how value is conveyed through the commons." (Interviewee 7)

"And it is also a matter of security, and a lock-in effect. As a public body you should prefer solutions, techniques, methods which are based on openness." (Interviewee 1)

"According to many researchers, many times security is a function of openness – i.e. an open source technology allows people to check on how it works, and identify any errors which they can later fix for the benefit of everyone." (Interviewee 2)

On the other hand, the aspect of resistance was noted as well. Participants held that sometimes the problem is not the individual people, those champions who evangelically preach the idea of new technologies, and advocate the use of these technologies in order to help in such situations.

"It is not at all easy in practice from my own experience to change large organizations, and especially in the public sector. It is very easy to say that open practices and technologies have many benefits, such as less cost, cooperation, innovation, but it is very difficult to integrate them in your daily use." (Interviewee 7)

As further described, public servants will not invest their time and effort in enhancing the public sector's capacity by learning how to use a new technology or software. Especially the people who are already executing their job's requirements, will probably not have any motivation for change. As an example (given by Interviewee 6), there are some officials to whom such a proposal will only cause stress, as they will have to spend their time learning a new tool instead of doing their job's tasks – appearing as less productive to their managers during the transition period. Therefore, the general culture within the public sector appears as hostile of the idea of a new tool, according to interviewed researchers' experience.

5.3   Authority and Legitimacy

As regards authority and legitimacy, in the context of the public sector that would entail government officials, politicians, decision-making bodies and other stakeholders. Key informants from the fields of commons and peer production mentioned the possibility of an interesting solution – the so-called 'public commons partnerships'. These involve the

potential of a public service authority – either on the national or local level – to take a part of that service and delegate it via a certain lawful way to the community – i.e. making self-governance a legal organisational mode under social management. Unfortunately, as stated, the legal framework of the majority of countries does not recognise such a nature of contracts for outsourcing. Therefore, if it was to be implemented via a project, this would vary according to the case. Interviewee 1 gave the example of Barcelona, where public consultation procedures, as well as participatory provision of services through digital tools took place, denoting a hybrid mode of commoning in essence.

Almost all examples given by the participants revolved around urban commons, assumingly because of the complexity of the matter to be taken to a national or cross-national level right away.

> *"And the thing is that in this case, the public authorities set up a framework, which allows for the autonomy of the civil society organisations. So that, any group in the city can basically start saying, well, 'we would like to take care of this or that'. And that is, the modelling Bologna."* (Interviewee 6)

Regarding the limitations in this important pillar, interview results ranged between unwillingness of authorities, to initial interest but eventual hesitation, rigidity of the nature of such legitimacy bodies, or even unawareness of the potential of commoning.

> *"A typical problem noted is that the public authority usually, even when there is a point that they would like to give some autonomy and freedom to citizens, at the end of the process, they appear rather hesitant to actually give it. So, I guess this needs a bit of attention so that the project would not be a disappointment."* (Interviewee 4)

Some participants also referred to possible shortcomings of such transition resulting from contributors themselves, suggesting that complete transformation through giving complete agency and autonomy over a service to a community, might not go as well expected.

> *"You can integrate that into the official decision making process and I think this is happening very slowly and will happen more, but it can't substitute. I think, if you look at what happens in hackerspaces, there are a lot of examples for going wrong and not that many examples for being organised well. So, the problems on the political organisational level are quite strong."* (Interviewee 6)

"Important in making things happen with the commons, is that a certain type of symbolic power needs to be mobilised. So some people may have some kind of legitimation, because they know how to do stuff, because they have positions, experience, etc. But you are never going to make a successful plan, as people are not likely to follow it due to the perished power of the state behind this." (Interviewee 1)

As discussed, interested parties will need to therefore negotiate among themselves about making a common plan, so everyone will understand what the rules and purposes are.

"So from my experience, the first thing is that you have to negotiate. If we were to divide the commons in architecture and governance parts, in order to have an architecture, you have to negotiate at the same time the governance with the players that are involved. But if you are not balancing the two things at the same time, then that is never going to work." (Interviewee 5)

In asking about the political actors within the public sector system, participants argued that they often appear as unaware of such self-governing activities, unless they could technically benefit from them.

"They have their own battlefield of politics and their own electoral cycles and all these kinds of circumstances. So they are willing to be involved when there is a political opportunity – at least this holds with the ones who are connected to political parties." (Interviewee 1)

"From my experience, also, we should rely more on public servants, because they are more or less always there, they are the ones who know how things work in practice. And they are the ones who are going to make things happen. As regards the politicians, I would say that you cannot depend on them because they are way less reliable. And if parties are changing over time, you will never know what is going to happen." (Interviewee 4)

The same key informant went on and described how the Fab City Grand Paris (FCGP) initiative turned out as successful, as regards the input from the local municipality. They have a representative within the city council (i.e. a public servant) who is involved in both entities and since they are employed there, they also represent the interest of the commons-based peer production project.

"So you have to have the people also into the municipality who possess a fixed job position, and they can be an intermediate to talk to the politicians and where things are

going, reporting to them in the same, let's say, language so they can always be on the same page." (Interviewee 4)

"But seeing that humans are not as they seem, even if they're really nice, guys, it does not seem enough. So a legitimised form of coordination and prevention seems to be a good idea." (Interviewee 6)

According to Interviewee 7, even today, the public sector can say that it supports open technologies and processes, but there is still a huge way to go towards that direction. Scholars support the claim that there is a huge resistance to the acceptance of open technologies and processes, partly because the public sector employees who are responsible in handling them, are not familiar with such technologies.

"Imagine being an administrative employee and working a life with Microsoft Windows and one day, they send you an email all of a sudden and demand that you now have to stop using it and find something else in its place." (Interviewee 7)

"It is a complex issue which is not as simple as making a political decision that says for example, that we are replacing closed technologies of the past with something more public, more flexible such as Linux for instance." (Interviewee 1)

5.4   Emergent themes

Of vital significance appear to be certain results coming out of the primary data collection procedure which were considered as relevant to the central part of the strategic triangle, and main part of the public value model selected for the present study's purposes. The emerging themes are listed and described below, post a thorough analysis and coding of the interview scripts. They include findings which are related to both the governmental perspective, as well as the commoners or members of community themselves, and other external and internal factors affecting the public sphere. It is to be highlighted that due to the holistic approach of this research and the choice of sources not directly related to the government or a particular community, the findings are based on their perceptions as scholarly experts.

5.4.1   Public problems

As regards public problems, interview results indicated that major unpresented problems such as the novel COVID-19 pandemic, reveal other important issues within the public sphere and polity. Numerous scandals have seen the light of news reports, involving also

cases where digital public services or projects were unreasonably outsourced to private companies with the excuse of cost-efficiency. Nonetheless, empirical evidence shows through global examples that outsourcing to the private sector is very often the worst and least cost-effective decision, of course sought after for the monetary benefits of certain politicians or actors involved.

"In terms of public health for example, even commoners will tell you that this is one of the most complex and sensitive issues that is required to be a service centrally designed by the government to comply with all protocols. However, this does not mean that there cannot take place any decentralization of different elements of this service."
(Interviewee 1)

"The transition of such a centralized service system, to a community-based planning system requires the redesign of public infrastructure." (Interviewee 4)

Therefore, potential enablers mentioned were forms of appropriate organizations that support self-organization and the necessary skills to be able to manage this transition, and political will implied as a mandatory prerequisite.

"Basically they are not technical problems but political problems." (Interviewee 7)

"The good thing about this is that we can get rid of the various entanglements in how it will work well and making sure that it will work well forever and for everyone - that is the goal, but we have to start by creating the right conditions to create something alternative." (Interviewee 1)

As also mentioned, measurable results will not prove the benefits for everyone in all circumstances. The mere fact that this is something different which creates the chances for something better, is a notable first step.

Another problem noted, is that of the switching costs. Interviewee 7 argued that the public sector will be highly unlikely to invest in new technologies based on the digital commons, and losing hundreds of millions of money already spent to build capacity using a specific set of software and methods.

"Something that Mariana [Mazzucato] would point out, is that in the end, some of the biggest challenges of humankind are extremely large scale, and the question is whether they are not too large scale to be undertaken by community action. Now, some people say 'no, we can do this by community action'. But most people even within these movements would say, we do need a state enterprise that coordinates us all. And it is

simply the best way of how to do that. Digitality allows to do that, but it still needs to be based on competence and motivation." (Interviewee 6)

So in climate action, at some point you do need legitimate coercion. We do realise that some people need to be pushed out of them. In the end, if you want people to stop smoking, somebody needs to tell them, this is not only a commitment, and there is the free-rider problem, tragedy of the commons, etc. In a way, to have an agreement we need to go with a certain level of coercion." (Interviewee 3)

5.4.2   Actors, Practices and Incentives

Interview participants referred to different types of actors and practices that are required to work well together, as well as the certain set of motivations that they will demand in order to proceed with such a transition.

"Respectively if we want to take in the scenario of a public service, what usually happens is that a private organization makes its offer and builds a system which many times is not based on public consultation. The alternative could be a public tender not directed to a single contractor, but outsourcing to a partnership of SMEs and a database, in order to follow the rules and procedures." (Interviewee 1)

Evidently, there exists a different range of incentives and agents for open source and public license projects.

"Usual forms of motivation include: to give the contributors agency, ensure a fair amount of working hours and monetary compensation, and so on." (Interviewee 5)

The issue of culture and education was another underlying factor in how certain actors affect certain procedures.

"We are nurtured from a very young age in the perception of public space as something that is there and someone else will take care of it. Therefore, we just consume goods and resources, until we destroy the wider environment and what is given to us."(Interviewee 1)

As a result, key informants hold that it is no longer a matter of proof or evidence – the number one example being climate change, the only issue that the whole scientific community agrees on worldwide and yet it seems extremely difficult to coordinate large-scale action.

"One thing that we are also finding a lot is that people want to somehow be involved in something that creates a real change for the best." (Interviewee 2)

"We are all aware of things that are not going well, but we have a lot of big challenges as humanity and society that no one is able to address. But people who are willing and able to contribute somehow they feel really engaged and absorbed." (Interviewee 4)

"To have such enthusiastic and dedicated peers in a large amount, you need to pay them at least enough to survive, so they will not have to leave the project to fund themselves by working somewhere they are not interested in." (Interviewee 5)

Nonetheless, participants in the study who are also commoners themselves said that their remuneration is usually personal grow and fulfilment, or if they are entitled to some kind of compensation, they communicate that openly and negotiate according to the resources available.

"If you make clear what are the available resources and what are the tasks have to be executed by whom so people are more willing to adapt to the kind of remuneration they can get to perform the tasks that are contributing towards social welfare and the common good." (Interviewee 5)

"Like the foundation that we are running now, we are working in part-time and we are always negotiating about how we are moving things and if it keeps going well, then there are more resources available for people to receive an increase remuneration in. So it is a somewhat flexible way – not resembling the contract employment mentality, but the contribution mentality." (Interviewee 4)

"The main concept is that you can do a lot of things in the digital age, but you cannot expect that you are going to get paid in the beginning, since you technically have to solve a (social) problem. And the main idea is like once you have gone far enough, then you can get the resources to improve. You essentially invest in yourself and your ideas." (Interviewee 4)

Other interviewees present the matter of incentives from a different stance.

"It is essentially a matter of motivation – for example, most civil servants in the Greek Government are somehow required to get vaccinated or they may lose their job. It is a very strong incentive for someone to get vaccinated." (Interviewee 7)

"Imagine the same thing happening with the commons-based technologies, that if, a decision was made and being given a short deadline in order to replace all the outdated systems with an open-source solution, then the public sector would move to an adoption of digital commons." (Interviewee 7)

As they maintain, governments will otherwise remain in the status-quo trap. However, they admit that the public sector is very rigid and a lot of issues arise when a transition is to be made within an organization that is not characterized by flexibility. Governments and public officials must be given significant impetus, or that a form of coercive enforcement is applied.

5.4.3   Participative democracy

In terms of participative democracy, interviewees suggested that people would have to trust this new system to support it and the digital commons could be a way for governments to ensure that citizens are not sceptical of the public services' activities and data handling.

"We get this kind of idea of a non-profitability transparency, kind of an open-source mechanism. So citizens can see that there are no evil plans behind the service, or their information is not used for anything else." (Interviewee 1)

"A good case is Estonia and e-voting, where they started in one way, and then moved gradually to an open source system, because otherwise, the trust was not going to build up. So now it is built as end-to-end open source, it means that the civil society itself can have their own groups of people that can check out if the software is okay and fix it." (Interviewee 4)

The architecture and government of the commons assumes that every person or group with an interest in a specific commons initiative will find a way to be part of it. In order to facilitate these democratic practices, a government is expected to desire verification in how these work and whether they are reliable as modes of organisation and production.

"So if the state is a stakeholder itself, should adhere to the rules and practices, too. So it is not like the organisation is hundred per cent the people, but they also have a representative of the government in order to see if the organisation is delivering or not." (Interviewee 5)

"If they see that the things are going well, then they will be more willing to put resources and we are seeing it in the case of Hamburg, for example, that they did this way. Now the municipalities are financially supporting them with near half a million euros per year, so the organisation can be sustainable about paying the people to do the work of the organisation. So in this way, if they see that the things are going well, they are respecting the regulations and rules and so on, then the local state is able to transfer funds directly to the organisation and see that the job is being done without having to do the terrible paperwork if it were to be delivered by the public sector itself."
(Interviewee 4)

Participants describe the involvement of the government in a commons project in terms of supervising, as a simple, and more agile way than running it themselves. Adaptation through reception of more feedback from the field of activity is always useful, as the response time to adapt to circumstances later becomes shorter.

"And also, at the same time, have a sense of responsibility or accountability, that the money is not thrown in a hole. And then at the end of the year, you are able to see where the money was going. A second factor is reporting on things as well, so the trust and integrity are always there." (Interviewee 5)

One of the most prominent problems however, is described by Interviewee 6:

"Humans are not angels, yet they live together with each other in one world. So the problem is, if you take the commons, and if you take cooperatives, and if you take blockchain and all of these things, people still will not get any nicer, they dispute and face issues. They are still vain and arrogant, greedy and so on, even if they're less greedy, they're still vain."

Eventually, it seems rather difficult to conceive of a system that works entirely without a level of moderation. That means there needs to be a moderator, and as key informants maintain, it is difficult to leave this to a group of people. Especially, if these people belong to anarchist side of society then they will probably not accept the state, even as a partner in what they are doing. An example would be Wikipedia. It still works but under arbitrary commission of the editors and responsible team.

"Groups of people may also go really crazy and push in a certain direction. And we have seen a couple of things in the commons world recently, where people really started freaking out or moving in politically strange directions and so on." (Interviewee 7)

The next chapter discusses everything in conjunction with key findings from the literature review and proposes a set of key take-aways from the present exploratory study.

6 Discussion

The present study set out to explore the transformational potential of the digital commons as an alternative paradigm underpinning the delivery of digital public services, as seen and analysed through the lens of public value theory. A number of shortcomings in the capacity and capabilities of the public sector were especially highlighted by the novel COVID-19 pandemic, as well as other recent crises. Noteworthy, public value entails both an ambiguous and an unmeasurable concept, therefore the present thesis adopts a specific stance in order to make its intentions clear to the reader and the potential contribution to the literature of public administration.

Public services comprise an integral aspect of our everyday lives and well-being as citizens of any nation, therefore the recent steps towards making them even more convenient and accessible at any point through digitalization should have been seen as a positive improvement. Nonetheless, recent literature – as demonstrated in the Literature Review chapter – grasps firm criticisms on the functionalities of digital public services and overall benefits and value created for the citizen, as well as the entire society.

Scholars in both scholarships under study in this thesis mention the need to move to a system which is predominantly based on collective action, contribution by a lot of actors and eventually to commons-based production through networks of peers. Therefore, these claims urged this thesis to qualitatively explore all these aspects together, through a lens which is not widely studied in prior research streams, in the context of digital public services.

The purpose of this study was to investigate and understand the socio-technical side of transforming or using aspects of the commons, via collecting insights, personal views and experiences of experts and scholars involved in both modalities. A total of seven interviews were conducted online over a period of one month, and yielded important results. Interviewees represent various research organisations, such as university departments and other foundations.

Through the adaptation of the theoretical framework on public value by Bryson et al. (2017) to the present thesis' purpose and the context of digital public services, the main research question and three sub-questions were addressed, also revealing a number of emerging themes. The specific model was perceived as the most suitable one due to its generic nature which allows for multiple interpretations through a variety of analytical dimensions and perspectives of different stakeholders, and most of all it ties with the chosen public value definition for this thesis.

The paradigm of the digital commons is considered as a novel perspective in the context of the public sector, and therefore interesting arguments have shed light on the potential of such practices to improve digital public services in terms of value created for the entire society. As aforementioned, the choice of a higher level of analysis and data collection sources to be outside the government but involved in both scholarships of commons and public sector innovation, was made based on the purpose of a holistic approach to the matter. This would also reveal any possible differences between scholarship and practice.

By giving examples based on their own personal research and experiences, participants expanded on all components of the selected theoretical framework, also presenting their views on how they perceive the creation of public value, and giving propositions on how the research problem of this thesis could be approached in practice in order to successfully implement transitional aspects from commoning activities that are already taking place in communities which are mostly independent from the state.

The research methodology followed in this study is based on grounded theory with some aspects from phenomenological philosophy, too. While the nature of the research is exploratory and inductive in principle, grounded theory evidently allows for a prior literature review, followed by the primary data collection procedure (Goulding, 2005). As a result, the approach taken by myself as the researcher, entailed a few assumptions rooted in my worldview and existing studies in the relevant fields.

Significant importance is also given to the dimension of dynamic capabilities and legitimacy within the public sector (Mazzucato & Kattel, 2020; Navarra & Cornford, 2012). As evident through the literature, these government dimensions are severely lacking, therefore affecting the whole public sphere and the ability of a government to respond to crises and emergencies, as well as other public problems. As a result, scholarship is also arguing about the profound misunderstanding in how public value is created and maintained.

Recent literature indicates that the wider notion of co-creation stemming from collaborative democracy scholarship and practice, shows a few limitations. In theory, co-creation is criticised by many scholars (see Lember, 2018) as a confusing and ambiguous term, whereas in practice, the majority of e-participation examples appear as unable to prove their promise (see Hennen et al., 2020). As a result, scholars such as Interviewee 2, hold that the commons even though they involve collaborative production, they are actually the most authentic type of participation, as people are actively contributing and sharing values and goods/ tools created.

The lens of analysis comprises of an adapted public value model which includes the complexity of the public sector as an ecosystem. The main component of the model is the strategic triangle, as initially introduced by Moore (1995) and consists of three main pillars: Public Value (interpreted as a hegemonic or contested term), Authority and Legitimacy and Capabilities.

The pillars are further described as to what they represent in the Literature Review and Research Methodology chapters. Noteworthy, the pillars also reflect aspects from other theorists' works, such as Mazzucato and Kattel's (2020) paper on dynamic capabilities in the public sector.

As evident through the data collection stage, digital commons appear as a two-way beneficial mode of governance and production in the digital public services. First, scholars suggested adopting open-source software, or second via commoning. The latter being an idea around delegating parts of services to groups of people and giving them the authority to take care of them as they best believe.

Starting with the notion of public value in the words of the seven scholars interviewed, findings include the reduction of human footprint as an important value, as well as the significance of commoning dynamics in enhancing the creation of this public value. By directly contributing and collaborating amongst networks, participants suggested that we should move to a mode which goes beyond simply participating through public consultations (e.g. e-participation initiatives organised by governmental authorities).

This entails the sustainable management and preservation of our resources and collectively produced material or immaterial goods and services, putting the right amount of effort where it is most needed. Therefore, value created flows within the system and is re-invested in a way as time goes by – but always stays within the society (Bauwens, 2013; Ramos, 2017). Hence, people are benefitting from equity without serving the profit-making interests of the few private actors.

Digital commons could also aid in terms of cost savings within a public procurement of a digital service, innovation potential through commons-based peer production and an enhancement in societal cohesion and collaboration between citizens who are willing to contribute towards the well-being of the whole society.

Therefore, the scholars interviewed have a different worldview on public value from the literature on the private sector, but very similar to the one held by proponents of mission-oriented public policy-making (such as Mariana Mazzucato) and the one held by commons activists (such as Vasilis Kostakis and Michel Bauwens).

Scholars, such as Interviewee 2, categorise the notion of public value based on three different aspects. These also reflect the new and enhanced capacity and capabilities a digital public service can bring or the entire government can develop, as potentially afforded by the commons. These are:

1) Co-production – as the first value creation mechanism.

2) Institutionalisation – mainly addressing bureaucratic autonomy and how new institutions can change the way the public sector is perceived and operates.

3) Emergency in the world – meaning both the agility required in order to tackle crises (such as COVID-19) and the serious climate change, as well as constitutes an incentivising factor for positive transformation towards more inclusivity and social awareness.

In the specific context of digital public services, results indicate that this transition can be achieved through various ways, stemming from the digital commons and commons-based peer production theory and practice.

Findings in the second pillar of the chosen model, revolve around the significance of capabilities and capacity-building in order to ensure a balance within the strategic triangle. As maintained by the data collection procedure's participants, factors include education, motives by both governmental officials and commoners, and the capacity and willingness to give power and agency to the people. Here the opinions differed between interviewees, as some appeared quite sceptical about the feasibility of such a transformation, mainly rooted in their concerns about public authorities' reluctance which is evident through numerous practical examples.

On the one hand, public officials do not seem very keen in giving out autonomy to the citizens, but on the other hand, as suggested, public servants who are in charge of certain public services will not either appear as ready to drop the status-quo and adopt processes and new technologies based on the digital commons. The interests of the vast majority emerge as limited to just performing their daily tasks, without wanting to experience the burden of learning for example Linux (which is commons-based) in place of the well-known, Microsoft.

Therefore, the idea of improving existing governmental capabilities and building additional ones brought by the commons could turn out as quite tricky, especially within the context of digital public services which – as also mentioned during the interviews – is very slow in progressional movement.

As regards the last pillar of the model, that of authority and legitimacy, interviews suggest an observed necessity for legitimate coercion. Proponents of the commons appear as quite hopeful about this transformation to the digital commons, but professors of public sector innovation and public administration mention the import issues of self-interest and greediness in human nature.

Another interviewee therefore suggested a way in which this could work, i.e. through public commons partnerships and changing the legislative framework of a nation in order to fit the needs for the legality of self-governing projects. As much as proponents of the commons might not seem keen about any kind of legitimate coercion, it is required as flat hierarchy will not likely work within the complexity of the public sphere.

An additional issue noted was the reluctancy witnessed by scholars themselves in their research, where politicians seemed unwilling to drop the status-quo and admit in inefficient ways of working.

6.1   Key take-aways

Enablers and challenges were identified in all three pillars of the framework, as well as ways in which the digital commons could aid in transforming digital public service provision driven by public value creation. Commoning practices are already taking place within the public sphere, at the municipal level of a few cities around the world, in the form of urban commons. This is still in a hybrid form, between digital and non-digital means. Communities through various projects, are increasingly given full autonomy by local authorities to design and take care of a public space according to their needs and fair share purposes. Nonetheless, on the national digital public service level, there does not seem to exist any concrete example or case, which could be taken as an idea or motivation for further exploration or intiating such a project.

In theory, a transformation to digital commons appears as almost perfectly feasible, but in reality it is certainly different, according to conclusions drawn from the qualitative interviews. First and foremost, it surely depends on how we interpret public value, which dimensions we look at and which analytical level we are in – according to the revised public value governance framework (Bryson et al., 2017) which guided this thesis.

Another key take-away resulting from combining primary data collected, is the fact that social life does not appear as something black or white – i.e. in juxtaposing the two prevailing paradigms. As understood, a society cannot either base itself within either the commons economic theory and self-organisation, or economic individualism and capitalism. A blend of the two – since we also need economic sources to survive – might

be a well-suited paradigm, beyond solely acting on altruism and therefore satisfying both societal and personal needs.

In many cases, digital public services involve the enclosure of private information by citizens. They therefore need to be reassured that their data is not mis-used, leaked or stolen and exploited in their detriment (see 'netarchical' capitalism by Bauwens), as for example with many private platforms internalising what they do not technically own and turning it into profit. What the digital commons can provide here is a more secure digital ecosystem, where via open and transparent processes (e.g. using open-source software), knowledgeable stakeholders can check and fix any false or malfunctioning governmental websites and platforms.

As regards certain challenges within the broader ecosystem, participants report important issues with legitimate coercion, as well as the legal frameworks of national governments which do not cover the aspect of self-governance, especially in public service provision. Concerning capabilities, even if the digital commons could bring about a wide range of improvements and advantages as discussed earlier in the thesis, a profound lack of skills and experience within the public sector is observed as a challenge if an open-source software were about to be adopted, for example.

Also, a few participants referred to the natural problem amongst humankind – that of self-interest and greediness, which would make such transformation a difficult task in reality. A potential enabler that might likely emerge, is the possibility of an obligatory transformation using digital commons aspects, due to natural evolution in technology (as for example what Perez describes as the five waves of industrial revolution), which would make it inevitable for everyone.

6.2   Limitations

The present study met its research objectives, through the selected methodological research design and strategy, as discussed and elaborated in both the introductory and research methodology chapters. Methodological limitations have been extensively discussed in the Research Methodology and Design chapter earlier.

As regards my own stance and assumptions aforementioned, this entails a limitation of the present thesis. Nevertheless, in the event of a different approach, the results would have possibly been quite diverse, thus highlighting the originality of my research.

An example of this is reflected in following idea. Regarding the public value lens and conceptualisation taken by the present thesis, theorists such as Madison (1996) hold that distinct economic classes within a society have a different set of interests, and therefore

personal values (cited in Bozeman, 2007, p. 138). This signifies that those interests are mostly guided by economic individualism – as described in earlier chapters of this study – which inevitably directly affects the worldviews and actions of many societal actors. Therefore, the choice of a stance within public value theory and what it actually means for every single person is highly effective on the study's outcomes.

7   Conclusion

An urge towards changing the ways in which the public sector plans and operates could have not come at a more pertinent moment.

The present thesis attempts to contribute to the field of public administration, and specifically public sector innovation, by shedding light on the concept of real value co-creation in digital public services through an alternative paradigm. This paradigm consists of the potential of the digital commons and peer networks to effectively transform the way digital public services are designed and delivered to society.

As explored through this study, there prevails an important misconception in the role of the state within the public administration research stream. This is grounded in the narrow belief that the role of the state is limited to being solely a service provider, therefore structuring citizens' expectations in a certain way. What must be understood is that public services create value rather than take it away – in the sense that value is not solely based on material good produced by the private sector (Interviewee 6). But this is not the case, as citizens should be regarded as contributors to the public value creation, since they are part of the general public sphere (Mazzucato & Li, 2020).

As a result, this exploration goes hand in hand with the notion of the commons in general, and how they could present new insights in how things should be done within a governmental context, too, besides the action carried out through private initiative of communities. A certain set of alterations and important components could be changed in order for this (partial) transformation to be feasibly implementable. The Findings chapter encompasses all these suggestions and arguments by the seven scholars and theorists interviewed, and give a holistic picture of which pillars are lacking, analysed through the lens of public value theory as discussed earlier.

The key take-aways presented in the Discussion chapter, suggest important insights, some of which could be further explored.

Resulting from conclusions made after the extensive review of relevant literature and interview outcomes, digital public services appear to still be an underexplored topic within scholarship, possibly due to the complexity in stakeholders involved, expectations and certain characteristics. Even rarer, is the linkage of both digital public services and digital commons concepts within research and practice.

Drawing on Bryson et al. (2017) statement that "public value can be both an end and a means" (p.643), the present study concurs with the authors, as revealed by the qualitative data collected. As evident, in the contemporary society we live in, public value could be

perceived as a means towards more inclusivity, enhanced social welfare and an environmentally sustainable future for everyone (Kostakis, 2019), through the underpinned values in the commons theory and practice.

Variety in perspectives and opinions was observed, possibly due to the differences in expertise or research interests, which proved as beneficial for the present thesis. Theoretically, it sets the tone for a new narrative that seems promising. Nonetheless, it is acknowledged that there is the need of testing theory in practice through pilot projects or specific case studies in order to generate new, more concrete evidence based on real-life examples. Of course each context differs, therefore future research possibly holds a lot.

Suggestions for further study also include identifying certain sets of public value failure in specific locations or contexts (as also maintained by Bozeman, 2007), and conducting further research on how exactly alternative paradigms, such as the commons, could be accepted by stakeholders who are directly associated.

Finally, according to Ansell et al. (2021), "we must think carefully about the types of institutional designs, platforms, and arenas that may help to spur robust governance in the face of turbulence and which forms of leadership are conducive to this" (p.956). Therefore, the main aim could be an achievement of the perfect balance within the strategic triangle and public value model, as rethought by Bryson et al. (2017).

What could be deemed as interesting in future research directions, is whether the purpose of public value could be re-thought, in terms of a new criteria of success in governing. Maybe a new common ground could be discovered upon which this very thought-provoking and important paradigm of commons-based peer networks could change entire governmental strategies towards the achievement of social desirable outcomes.

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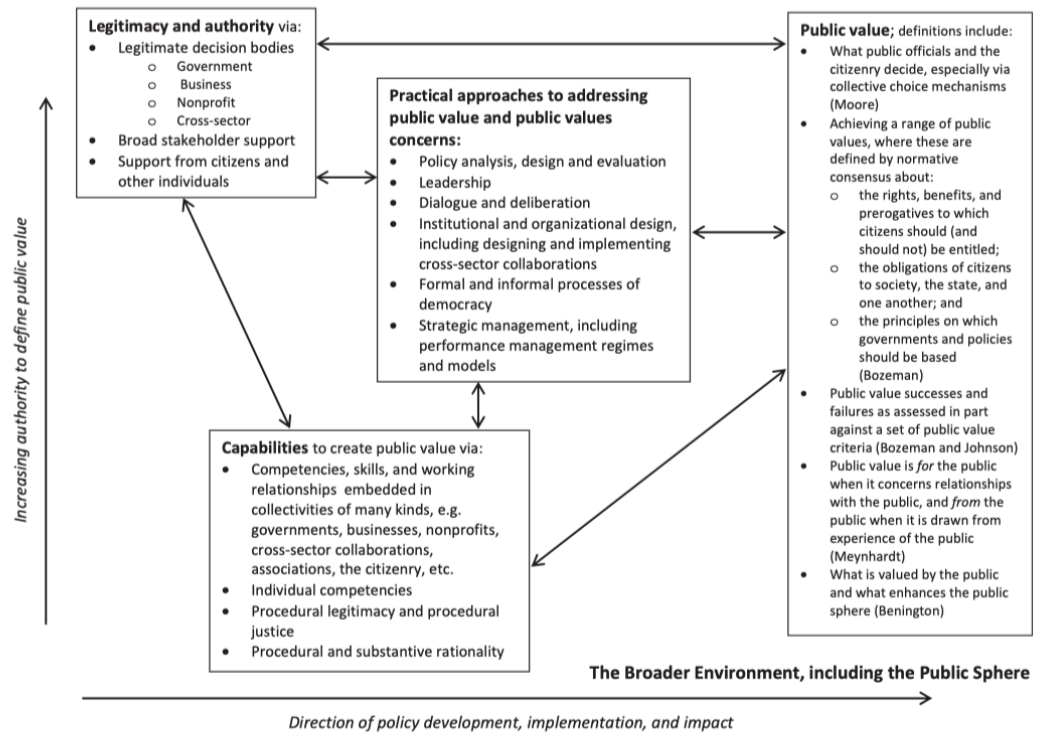
Appendix

A

Figure 10 The public value governance triangle (Bryson et al., 2015 cited in Bryson et al., 2017, p.644)

Declaration of Authorship

I hereby declare that, to the best of my knowledge and belief, this Master Thesis titled "PUBLIC VALUE CREATION IN DIGITAL PUBLIC SERVICES: EXPLORING THE TRANSFORMATION POTENTIAL OF THE DIGITAL COMMONS" is my own work. I confirm that each significant contribution to and quotation in this thesis that originates from the work or works of others is indicated by proper use of citation and references.

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