Digital and analogical discretion: an exploratory study of Italian street-level bureaucrats

Rebecca Paraciani and Roberto Rizza
Department of Political and Social Science, University of Bologna, Bologna, Italy

Abstract

Purpose – The article examines how street-level bureaucrats (SLBs) manage the digital bureaucratic relationship in dealing with customer needs and the technological innovations introduced into organisations (digital tools). The topic of technological transformations from a street-level perspective has garnered limited interest so far, especially in Italy. The research question underlying the article is as follows: how does the discretion of SLBs change with the introduction of digital tools within the public administration? We expect that the characteristics of clients on the one hand, and the degree of institutionalisation of the digital tool in question on the other, will change the way in which SLBs exercise their discretion.

Design/methodology/approach – The data were collected from two separate research projects in which the authors were involved: (1) the first was a doctoral research project concerning labour inspectors tasked with investigating labour irregularities reported by workers; (2) the second was a research project regarding the relationship between the elderly and public service caseworkers. Information gathered through a series of semi-structured interviews was analysed, with a focus on the digitalisation process. The interviewees included 15 labour inspectors, and 12 long-term care caseworkers. With regard to the interviews conducted with labour inspectors, we examined the online request for action submitted by workers reporting irregularities in their employment relationships. As regards the interviews with caseworkers involved in services for the elderly, the discussion revolved around the option introduced during the pandemic period in 2020, to request access to the services in question through submission of an online form rather than requesting such services in person.

Findings – What emerges is that while the introduction of digitalised policies allows SLBs to obtain more information with which to assess the situation of individuals, the discretionary power exercised by front-line workers only results in the partial use of the digital tool, whilst favouring the traditional relationship between bureaucrats and their clients.

Originality/value – We introduce the concepts of "digital discretion" and "analogic discretion" in an attempt to understand how SLBs use their decision-making powers, which may prove to be useful analytical tools for studying the ways in which the discretion of SLBs is realised through new digital practices.

Keywords E-government, Street-level bureaucracy, Bureaucratic encounter, Digital discretion

Paper type Research paper

1. Introduction

Digital welfare and digital public policy are becoming increasingly important (Larsson and Teigland, 2020; Huws, 2020; Manzo and Paraciani, 2022). When examining the relationship between social policy and technological innovation, several aspects of that relationship emerge, including efficiency, cost reduction, staff savings, openness, the consistency of decisions and a reduction in the number of errors made. Over time, new objectives such as policy responsiveness and agility, customer service and service innovation, personalisation

and improved accountability, have been adopted (Henman, 2022). This paper analyses how frontline workers, conceived as street-level bureaucrats (SLBs), manage relationships with service customers through the medium of digitalised public policy.

While this topic is still of limited interest (Barberis *et al.*, 2019), it has not remained unexplored. There are a number of studies that focus on how the work of SLBs changes with the introduction of digital practices and tools (Wihlborg *et al.*, 2016), and on how the discretion of SLBs is limited or amplified by the use of automated processes (Jansson and Erlingsson, 2014; Houston *et al.*, 2015). Specifically, we aim to answer the following research question: how does the discretion of SLBs change with the introduction of digitalised tools?

Two qualitative case studies will be examined, focussing on the relationship between SLBs and citizens that has been – to some extent – digitalised. The first concerns the relationship between labour inspectors and workers who report irregularities in their work. The second looks at the digital relationship between caseworkers and the elderly or their carers, which went online during the pandemic in 2020. The digital tool introduced by the labour inspectorate is institutionalised to a greater extent than the services for the elderly implemented during the emergency.

We expect the discretion of SLBs to be modified by both the characteristics of their clients (including, for example, the degree of perceived digital literacy), and the degree of institutionalisation of digital practices. A practice becomes institutionalised when rooted in the assumptions, beliefs and values held by individuals, and when legitimised within the organisation (Meyer and Rowan, 1977).

What emerges from, and unites, the different case studies is that while the introduction of digitalised policies has allowed SLBs to obtain more information with which to assess the situation of individuals, the discretionary power exercised by such frontline workers results in just a partial use of digital tools while privileging the preservation of the traditional bureaucratic relationship. Furthermore, we offer what we believe to be a major advancement in regard to digital bureaucracy and discretion. Regardless of the outcome of SLBs' decisions, we introduce the concepts of 'digital discretion' and 'analogical discretion' in an attempt to understand how SLBs use their decision-making powers.

The paper is organised as follows. The first section introduces the concept of digital public policy, and then discusses the relationship between SLBs and service clients in the area of digitalised policy. The following section presents two case studies. The results of the qualitative research into digital and analogical discretion are presented in section three. The final section concludes by considering new research challenges in the study of digitalised social policy from the street-level bureaucratic perspective.

2. Public administration and digitalisation

The emerging phenomenon of digital transformations in the public sector now registers a growing body of scientific research. There are several definitions of the concept of digitalised policy to be found in the literature. One of the classifications often referred to is that proposed by the organisation for economic co-operation and development (Burtscher *et al.*, 2024), based on the activities and purposes pursued. A public administration is considered digitalised when it uses information and communication technologies (ICT) – especially the Internet – to improve the quality of the services it provides (Brown, 2005). ICTs are the combination of technologies embodied in the Internet, which emerged in the early 1990s (Rowland, 2006), and its more recent offspring, notably wireless technologies and social networking. This is a broad label that encompasses various different actions, ranging from the simple use of the Internet in the delivery of public services, to the transformation of the governance of the public sector and the latter's relationship with a nation's citizens. More specifically, digitalisation brings together two elements that were not previously linked. The first is the environment created by the use of electronic technologies such as computers, e-mail, the Internet and other ICTs, combined with new management approaches. The other refers more generally to the relationship between citizens and the state, and comprises changes in the concept of democracy as such (Hu *et al.*,

2009). One strand of studies considers digitalisation to be an independent variable determining how public policies are transformed (Buccoliero and Bellio, 2010). A second strand considers digitisation to be a co-dependent variable that intersects with service design, infrastructure quality and new management procedures (Nograšek and Vintar, 2014). Both have limitations and have led scholars to develop alternative explanations and models, such as the 'stage model' (Layne and Lee, 2001), which conceives the digitalisation of public policy as a four-stage evolutionary process characterised by increasing levels of technical and organisational complexity. Andersen and Henriksen (2006) go beyond this model and propose a 'Public Sector Process Rebuilding Model', which links digitalisation to citizens' needs. Reddick (2011) identifies three ways in which digital public policies can be implemented.

(1) By managerial means, based on a unidirectional communicative logic, functional to the interests of the PA and where citizens have no place;

(2) By consultative means, whereby technology is used to facilitate the two-way relationship between citizens and public service providers;

(3) By participatory means, akin to e-democracy, whereby the relationship between the state and citizens becomes of a horizontal nature.

These approaches share the belief that digitalisation strengthens the direct relationship between citizens and frontline workers. In fact, the rapid development of new technologies in recent decades has increasingly influenced the interactions between public administrations and citizens (Bovens and Zouridis, 2002). Through their ability to connect entities and individuals in ways that transcend the standard organisational chart, and to simultaneously centralise and decentralise within an integrated institutional environment, ICTs have transformative potential, leading to what has been described as IT-enabled government (Borins *et al.*, 2007) or digital-era governance (Dunleavy *et al.*, 2006). Accordingly, it is important to understand what impact the introduction of a digital tool in the public policy field can have on the discretionary power of SLBs.

3. Digitalisation and street-level bureaucracy: the state of the debate

Research on street-level bureaucracy has shown that policy implementation is more than simply making decisions based on policy rules and regulations (van Berkel, 2023). These studies make two important points: firstly, that policymaking and implementation are two separate concerns; and secondly, that the frontline decision-making process is not policy-driven. What is required here is a contextualised approach that takes into account organisational resources and the quality of work, the governance system in which SLBs are embedded and the role of clients. SLBs interact directly with citizens while implementing public policies by adapting and shaping policy measures according to specific situations (Saruis, 2015; Paraciani, 2023). In this sense, they exercise a considerable degree of discretion when implementing policies addressing different dilemmas (Raaphorst and Loyens, 2020). The discretion of SLBs affects the implementation of policies and the rules or procedures (Riccucci, 2005). When acting, they are faced with various problems regarding the interpretation of the applicable guidelines, and ultimately they determine what is considered feasible. The bureaucratic relationship thus becomes an integral part of public policy implementation (Leonardi *et al.*, 2021): operators determine their schedule of meetings and the information they need, and they even decide whether or not to provide a service (Kazepov and Barberis, 2013; Jilke and Tummers, 2018). Over time, computer modelling and simulation tools have been utilised to help the development of public policy, by enhancing policymakers' capacity to create more nuanced, far-sighted, far-reaching policies (Henman, 2022). PA agencies have amassed a considerable number of digital administrative datasets (Cukier and Mayer-Schoenberger, 2014) that shape social policy. What was made possible through the exercise of administrative or professional discretion is codified in complex algorithms. The

most pressing questions focus mainly on the conditions and consequences of applying algorithms to decision-making processes affecting the public sector, thus partially or completely replacing physical operators (Røhl, 2022; Veale *et al.*, 2018).

Our study aims to better understand the relationship between digitalisation and the discretionary powers of SLBs. One strand of research argues that the discretion of SLBs disappears in the face of the standardisation of digital bureaucracy (Snellen, 2002; Landsbergen, 2004). These scholars argue that digitalisation excludes practitioners from decision-making by introducing automated case evaluation into policy implementation. We move from a street-level encounter to a "screen-level encounter", whereby human judgement is gradually replaced by accurate algorithms (Bovens and Zouridis, 2002): the greater the degree of digitalisation, the less important human intervention and discretion become. A second line of research considers digitalisation as just one factor shaping the discretionary actions of SLBs. Buffat (2011) examines the impact of digitalisation on the discretionary powers of street-level caseworkers. The author shows the paradoxical effects of the newly-introduced electronic document management system. This system provides managers with much more information, and enables them to comply with legal requirements. However, the introduction of remote control through a software programme compromises the quality of supervision: senior managers are no longer part of the working group, and they need a clearer view of the decision-making process. The time available for supervision is limited and consequently managers are unaware of the content of the work in question. The degree of discretion of SLBs therefore remained the same after the introduction of digitalisation. Jorna and Wagenaar (2007) examine the allocation of welfare benefits in the Netherlands. They find that digitalisation provides greater accuracy with regard to formal aspects, but fails to capture the informal dimension of the decision-making process in which SLBs play a crucial role. Rather than eliminating or reducing discretion through tighter controls, digitalisation simply conceals the informal aspect of discretion. Another line of research argues that the contrast between digitalisation and discretion is irrelevant. Weller (2012) reports the case of a street-level caseworker who used satellite measurements to prevent a farmer from being penalised by French agricultural regulations. The importance of this case lies in the fact that human judgement and in-depth knowledge of the terrain made it possible to evaluate and challenge the automated, digital decision, thus demonstrating the critical role played by the discretion exercised by SLBs. Some studies focus on the digitalisation of the more traditional bureaucratic encounter (Hasnfeld *et al.*, 1987). The impact of the introduction of technology is complex. For example, Vitalis and Duhaut (2004) point out that customers only prefer a remote call if they consider their request to be simple and straightforward. Otherwise, customers would rather have direct, face-to-face contact: and thus current digital tools seem to be limited to translating customers' needs into administrative outcomes. Tummers and Bekkers (2014) show how SLBs see their actions limited by digitalised procedures which adopt an overly rigid strategy vis-à-vis clients, and consequently the SLBs implement a considerable degree of discretion in their daily work.

4. Research methodology: an exploratory study of two qualitative case studies

This section outlines the research methodology adopted here, and presents two case studies that explore the relationship between the digitalisation of public policy and the discretionary powers of frontline street-level workers. The findings are derived from a secondary analysis (Heaton, 2008). The data were collected from two separate research projects in which the authors were involved: (1) the first was a doctoral research project concerning labour inspectors tasked with investigating labour irregularities reported by workers; (2) the second was a research project regarding the relationship between the elderly and public service caseworkers. Information gathered through a series of semi-structured interviews was analysed, with a focus on the digitalisation process. The interviewees included 15 labour inspectors interviewed in 2019, and 12 long-term care caseworkers interviewed in 2020–21.

With regard to the interviews conducted with labour inspectors, we examined the online request for action submitted by workers reporting irregularities in their employment relationships. As regards the interviews with caseworkers involved in services for the elderly, the discussion revolved around the option introduced during the pandemic period in 2020, to request access to the services in question through submission of an online form rather than requesting such services in person. The material was analysed using QDA software in order to facilitate data labelling and analysis, with a specific focus on the question of digitalisation (Bryman, 2016). Building on the existing literature on street-level bureaucracy (SLB), information was classified according to the nature of the discretion exercised, and according to the characteristics of the solutions proposed by street-level operators.

The first classification strategy was based on the SLB literature. Discretion can be exercised by adhering to rules and procedures whilst nevertheless preserving room for manoeuvre with regard to the interpretation of those rules and guidelines. The second approach concerns the fact that SLBs operate in those grey areas lying between the rules and their interpretation. The third classification regards the possibility that SLBs may ignore rules and procedures, and depart from established protocols, to resolve a given situation (Kazepov and Barberis, 2013; Barberis *et al*., 2019). The second strategy identifies the type of discretion exercised by respondents regardless of the use of digital tools. Discretion that requires interaction with digitalisation is classified as 'digital discretion', while the type of discretion that does not depend on digitalisation is classified as 'analogical discretion'. The reliability of data is enhanced by the similarity of the digital tools selected for comparison, making it possible to analyse the different uses of discretion.

5. Discretion and digitalisation: an exploratory research
This section presents the primary findings resulting from the secondary analysis of the 27 interviews conducted. The aim here is to examine street-level operators' freedom of choice when technological mediation is involved in a bureaucratic relationship, and how this dynamic reshapes interaction with the clients concerned.

5.1 Digitalisation and types of discretion
The analysis is based on a categorisation of the concept of discretion. By merging different definitions, three non-mutually exclusive meanings emerge that enrich its meaning (Ham and Hill, 1986; Evans and Harris, 2004; Kazepov and Barberis, 2013).

(1) *Discretion within the law*: SLBs utilise discretionary power confined within the limits set by the formal normative framework assigned to them. For example, if a rule provides that the SLB can decide which penalty to assign within a predetermined range, then the discretion is established by the rule itself (Saruis, 2015).

(2) *Discretion among the law*: SLBs interpret and construct norms to address gaps and uncertainties in the formal regulatory system. For example, when two standards overlap and SLBs have the opportunity to decide which standard is more valid (Paraciani and Rizza, 2021).

(3) *Discretion out of the law*: SLBs deviate from formal regulations to grant or deny service clients access. In these cases, the SLBs are actually breaking the rules, e.g. by deciding to turn a blind eye and not to impose a sanction, or by managing the case in such a way as to achieve a particular outcome of the assessment (Leonardi *et al*., 2021).

Table 1 shows the types of discretion used by SLBs in their approach to digitalisation. In both cases, there is a tendency to operate outside of the established norms. In both cases (that of labour inspectors and that of caseworkers), this is clear from the majority of the interviews given.

Table 1. Types of discretion and their absolute value for SLBs

| | Type of discretion | | |
	Within the law	Among the law	Out of the law
Labour inspectors	2	5	8
Caseworkers	3	2	7

Source(s): Authors' own creation based on the fieldwork

Because it's not just a question of . . . as it were, bureaucracy, but a question of listening. You [meaning the client] want to be listened to; you won't settle for being simply filed away. So I'm supposed to say to people who come to the counter, 'Look, it's all on the site' or Listen, you can do this online' [referring to an operational rule established at the organizational level]. But I accept the complaint the old-fashioned way.
Labour Inspector 4. Discretion out of the law.

But it must also be said that we are talking about older people in many cases. In such cases, the caregiver is also an older adult . . . in short, let's say that they may call to ask for help, and often I end up counting the call as a request to take responsibility even if I can't. I'm more useful that way because I then have to assess the request and maybe enter it online later, just like we used to do when they came to the counter in person.
Caseworker 6. Discretion out of the law.

Labour inspectors often use what has been defined here as discretion *within the law*. A total of 5 out of the 15 inspectors interviewed admitted to finding loopholes in the law by using the online tool. What emerges here, as will be discussed in more detail in the following subsection, is that in most cases of discretionary powers employed outside of the law, the use of so-called analogical discretion prevails. Discretion within the law only emerges in two interviews conducted with caseworkers.

It was the third time this worker came outside of counter hours [referring to the complaints desk] and told me he could not fill in the online form because he did not know Italian well enough. So I told him, 'Look, come into my office for a moment' and I sat him down, and filled out the online form with him. Let's say, in the end, he did it under my guidance.
Labour Inspector 12. Discretion among the law.

You can be contacted by phone. There was this caregiver . . . the lady's son, a grown up man . . . I simply understood that,. how should I put it, there was no way this could have worked. So I asked for the name of someone close to them, perhaps a family member. I spoke the next day with the nephew . . . a young boy I think, but he understood, and a few days later the online evaluation request came. [. . .] Because . . . we have an evaluation grid to follow, and we need to have the digital platform filled to follow a case from start to finish . . . we have to track it starting from the initial request.
Caseworker 11. Discretion among the law.

5.2 Digital and analogical discretion
As expected, in this section we look at both the outcome of the use of the digital tool and the nature of discretion, that is, whether it is digital or analogical. We have tried to ascertain whether the outcome of the use of discretionary power leads to the adoption of the digital tool or otherwise. Table 2 summarises the overlap between the categories of digital and analogical discretion and the types of discretion used in the previous subsection.

What emerges is that in all those cases where the discretion employed is within the limits established by the rule, this leads to the use of the digital tool.

You don't have problems with Italian; you turn up at the counter and maybe there are a lot of people behind you in the queue, and I say, 'Look, go to the website–I give them the instructions- and do it from there.'
Labour inspector 2. Digital Discretion.

Table 2. Digital and analogical discretion and their absolute value for type of discretion

	Digital discretion	Analogical discretion
Within the law	1	4
Among the law	6	0
Out of the law	9	6

Source(s): Authors' own creation based on the fieldwork

The frontline worker also uses digital tool when he/she acts in accordance with the laws and procedures.

> If they call–and many do call, either in person or through their children perhaps- . . . anyway, if they call I listen to them, I explain to them how to follow the online procedure, and to be on the safe side, I write down the data, some notes, and the number. So, then I enter the system to check that they have done so successfully, and if they haven't I call them back.
> Caseworker 7. Analogical Discretion.

However, in 11 out of 15 cases where discretion is used outside of the law, the digital tool is not employed. In both case studies, seven respondents indicated that they bypass both the rule and the digital tool in order to help clients.

We have classified discretion as digital regardless of the use of ICT. For example, in those cases where SLBs enter fake data on the platform, or replace the data of the clients. Conversely, we classify discretion as analogical when it is not mediated by the digital tool. For example, if the SLB decides to spend more time with the client, explaining how the platform works, then this behaviour is classified as "analogical discretion".

The result is that when discretionary power is exercised within the law, SLBs tend to use the digital tool. Despite this, the employment of analogical discretion tends to prevail.

> Sometimes, they call to find out how to send the [intervention] request online. If I realise that they don't understand each other on the phone, I tell them to come to the complaint desk with their mobile phone and I explain how to do it. That way, they also know what to do the next time.
> Labour inspector 12. Analogical Discretion.

> I make him talk, and while he makes the phone call, I complete the request form using his data just as if he were doing it himself.
> Caseworker 7. Analogical Discretion.

On the contrary, there are several cases in which behaviour outside of the law moves within the digital dimension, even though the aim is to bypass ITC.

> I prefer the complaint desk. So, I take the complaint in the traditional manner. And then as things proceed, maybe I enter it once, and then pick it up again. That is to say, when I am then in 'phase two' [referring to the next phase of the proceedings, that of the investigations], if it's up to me or a colleague I know, then maybe I enter it and put the date of when he came in to do it on paper—otherwise I don't, and leave it at that
> Labour Inspector 13. Digital Discretion.

> While he explained the situation to me, I went to our dataset and checked previously reported situations or anything related to the ISEE and the housing situation. I reconstruct his history. Then afterward, I manage it autonomously, let's say.
> Caseworker 1. Digital Discretion.

Although the question of digital discretion has not been studied in any great depth, it is interesting to see how discretion changes, and the new forms it takes, when channelled through ICT.

5.3 The characteristics of clients and the institutionalisation of the digital tool
Our findings would seem to confirm our first research hypothesis, namely that clients' characteristics determine the nature of the discretion exercised by SLBs. What emerges from the interviews we have analysed is that the tendency of labour inspectors and caseworkers to use or not to use, digital tools is generally correlated to clients' age and nationality.

> It is also true that our clientele [referring to older people] is a specific one. In many cases, we do not receive requests directly from the elderly but from their caregivers who may be familiar with the digital tool.
> Caseworker 11

> Even after the pandemic, they will keep this tool [the online form]. And that may be fine if it remains an option, but it will create problems if only one solution exists. Can you imagine an elderly person on the Internet? Not to mention the caregivers. Often, our clients' caregivers are elderly as well.
> Caseworker 2

> But how do we get low-skilled workers, who may no longer be young, to use computers?
> Labour Inspector 13

If the client is elderly or has a low level of education, attempts will be made to limit the use of the digital tool. The same applies if the client is of foreign origin. The service often has no way of overcoming the language barrier, even though the digital tool could easily be adapted to overcome this obstacle, for example by preparing the same form in different languages, so that the client can choose his/her preferred language.

> If you turn up at the complaints desk this probably means that you don't have problems understanding Italian, and that's something I take into consideration, anyway.
> Labour inspector 2.

> If you are a foreigner, I'll find a way of helping you. . . . if you don't speak Italian, how can you be expected to fill out a form written in Italian? Perhaps in English? If you know neither Italian nor English, I have to find a way to include you in any case.
> Labour inspector 14.

> Over here, foreigners struggle to access services offline; can you imagine online ?.
> Caseworker 12

While our data show how clients' characteristics influence the SLB's use of the digital tool, they are not positively correlated to the tool's level of institutionalisation. In the case of the labour inspectorate and social services, half of the SLBs surveyed use their discretionary powers to refrain from using the IT tool, and in doing so they are thus acting wrongly.

Those in question include seven out of 15 labour inspectors, and five out of 12 caseworkers. The interesting thing is the reasons why certain SLBs use their discretionary powers outside of the law. Theoretically, what is termed "discretion outside of the law" results from the praxis when dealing with clients. The definition foresees an action outside of the law either favouring the client or, on the contrary, harming the client (Sager *et al*., 2014; Saruis, 2015). What our analysis of the interviews shows, on the contrary, that it is the SLB's lack of trust in the digital tool that leads to the aforesaid course of action. In fact, of the 12 SLBs who tend not to use digital tools, nine stated that they do so not only for the benefit of the client but also because they do not recognise this type of practice. This group comprises six labour inspectors and three caseworkers.

Below are some extracts taken from the interviews, which may help us understand the reasons for their distancing themselves from the use of the digital tool.

> How can a programme, no matter how detailed (and in our case, I guarantee it is not exhaustive), replace our work?
> Labour Inspector 15

> This form [referring to the application for access to the social service] needs to be better. Not only because we are dealing with particular clients, elderly people, but also because it could be smarter. And also because it limits our work a lot. At the end of the day, when a person has come to us in person, we understand and decide how they ought to be approached and asked for information, so we don't use the programme. You get a list that you don't even know about. You get a list that doesn't tell you much or tells you things that you don't need to know because you want to do things another way.
> Caseworker 1

In all nine of the interviews where SLBs do not share the suitability of the digital tool, the reason is that they see that tool as a limitation, and in some cases, as a form of control. It distorts the work of the individual and the SLB-client relationship, which is no longer seen as such. The face-to-face relationship, the essence of the bureaucratic encounter, inevitably becomes screen-to-screen, and thus the work of these operators loses its meaning.

This result certainly needs to be contextualised: the digitisation of the public sector in Italy, where the interviews were conducted, is still in progress. Despite the digital PA targets set by the national recovery and resilience plan (NRRP), the digital divide in Italy is still high and the gap with other European countries is still large (Pérez-Morote *et al*., 2020).

6. Concluding remarks

Although the digitalisation of welfare is an increasingly pervasive topic in our daily lives and in political and social science debate, it still seems little studied from a street-level perspective (Buffat *et al*., 2016; Barberis *et al*., 2019). Although limited by the need for an *ad hoc* research design, this article aims to offer an analysis designed to bridge this gap. If, at the international level, the debate on the relationship between digitalisation and SLBs is still of a limited entity, there is a need for greater discussion and analysis of the question in Italy, also because the digitalisation of the country's public administration is still incomplete, despite being on-going for some years now (Datta *et al*., 2020). At the international level, existing research focusses on the persistence or otherwise of SLBs' discretionary power without investigating the nature of that power. This paper, on the other hand, attempts to reflect on the forms of such discretionary power and on the dimension – digital or analogical – in which it becomes concrete; and in doing so, the article introduces a new analytical tool for the purposes of social research. Furthermore, it analyse an understudied context: the Italian case, which requires further research. In this context, the topic of the digital transformation of public administration is indeed little researched, especially from a street level perspective, despite the fact that it is one of the main objectives of the European Digital Agenda 2030 and the Digital PA 2026 of the NRRP. Moreover, more than 50% of the Italian population is over 32 years old and in 2050 the over 65 could represent 34.5% of the total population (today they are 14%).

This means that the potential users of services are not digital natives and therefore the way in which the bureaucratic relationship is changing and will change is certainly worth studying.

Our initial hypothesis was that the discretion of SLBs would vary in accordance with clients' characteristics, such as their perceived degree of digital literacy, together with the extent to which digital tools are institutionalised. We then considered one institutionalised tool embedded in the labour inspectorate, and one instrument introduced in 2020 during the COVID pandemic, namely that of applying for online access to services for the elderly. In both cases, the type of client with whom the SLBs interface plays a substantial part in the decision of whether or not to employ the digital tool. In the case of an elderly client (who may encounter problems due to the "digital gap"), and in that of a foreign client (who may language problems when filling in an online form in Italian), the SLBs will tend to avoid the digital tool and look for an alternative solution.

However, to find such a solution, they will have to use a new form of discretion, that is, digital discretion, which is key to "fooling" the platform and render the system unaware of the fact that the traditional procedure is actually being used. On the other hand, as far as the

institutionalisation of the tool is concerned, our analysis did not reveal any differences between one case and the other. What did emerge was a general resistance to using the tool on the part of the SLBs. Although the digital bureaucratic encounter is the focus of the paper, the reasons for not using the digital tool, in many cases, include those more closely related to the SLB him/herself and the SLB's relationship with ICTs, rather than reasons concerning the client and his/her needs.

Many frontline workers prefer 'face-to-face' meetings with their clients since they need a degree of recognition in their work, whereas digital procedures seem to make their work meaningless and tend to diminish the importance of personal style.

Despite its exploratory nature, the article contributes to the SLB literature by exploring the new bureaucrat–user relationship: SLBs–digital tool users. By focussing on practices, the paper provides a new analytical tool for studying the digitisation of the public sector with a street-level lens, including two new categories of analysis: digital discretion and analogical discretion.

As a notable limitation, this study is based on a secondary analysis of data collected in two case studies and lacks an ad hoc research design. Nevertheless, its exploratory intent aims to increase understanding of the topic and stimulate new research on it.

For the same reason, the replicability of the coded strategy could help to extend the analysis within other European countries to reflect on the different digital contextual settings.

References

Andersen, K.V. and Henriksen, H.Z. (2006), "E-government maturity models: extension of the Layne and Lee model", *Government Information Quarterly*, Vol. 23 No. 2, pp. 236-248, doi: 10.1016/j.giq.2005.11.008.

Barberis, E., Paraciani, R. and Saruis, T. (2019), "Tra il dire e il fare: la prospettiva street-level e l'implementazione delle politiche di welfare. Nota introduttiva al focus", *Politiche Sociali*, Vol. 6 No. 3, pp. 389-406.

Borins, S., Kernaghan, K., Brown, D., Bontis, N. and Thompson, F. (2007), *Digital State at the Leading Edge*, University of Toronto Press, Toronto.

Bovens, M. and Zouridis, S. (2002), "From street-level to system-level bureaucracies: how information and communication technology is transforming administrative discretion and constitutional control", *Public Administration Review*, Vol. 62 No. 2, pp. 174-184, doi: 10.1111/0033-3352.00168.

Brown, D. (2005), "Electronic government and public administration", *International Review of Administrative Sciences*, Vol. 71 No. 2, pp. 241-254, doi: 10.1177/0020852305053883.

Bryman, A. (2016), *Social Research Methods*, Oxford University Press.

Buccoliero, L. and Bellio, E. (2010), "Citizens web empowerment in European municipalities", *Journal of E-Governance*, Vol. 33 No. 4, pp. 225-236, doi: 10.3233/gov-2010-0232.

Buffat, A. (2011), "Pouvoir discrétionnaire et redevabilité de la bureaucratie de guichet: Les taxateurs d'une caisse de chômage comme acteurs de mise en oeuvre", Doctoral dissertation, Université de Lausanne, Faculté des sciences sociales et politiques.

Buffat, A., Hill, M. and Hupe, P. (2016), *Understanding Street-Level Bureaucracy*, Edited by, Policy Press, Bristol.

Burtscher, M., Piano, S. and Welby, B. (2024), *Developing Skills for Digital Government. A Review of Good Practices Accross OECD Governments*, OECD Social Employment and Migration Paper.

Cukier, K. and Mayer-Schoenberger, V. (2014), "The rise of big data: how it's changing the way we think about the world", in *The Best Writing on Mathematics*, pp. 20-32.

Datta, P., Walker, L. and Amarilli, F. (2020), "Digital transformation: learning from Italy's public administration", *Journal of Information Technology Teaching Cases*, Vol. 10 No. 2, pp. 54-71, doi: 10.1177/2043886920910437.

Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. (2006), "New public management is dead—long live digital-era governance", *Journal of Public Administration Research and Theory*, Vol. 16 No. 3, pp. 467-494.

Evans, T. and Harris, J. (2004), "Social work and the (exaggerated) death of discretion", *British Journal of Social Work*, Vol. 34 No. 6, pp. 871-895.

Ham, C. and Hill, M. (1986), *Introduction to Public Policy Analysis*, il Mulino, Bologna.

Hasenfeld, Y., Rafferty, J.A. and Zald, M.N. (1987), "The welfare state, citizenship, and bureaucratic encounters", *Annual Review of Sociology*, Vol. 13 No. 1, pp. 387-415, doi: 10.1146/annurev. soc.13.1.387.

Heaton, J. (2008), "Secondary analysis of qualitative data: an overview", *Historical Social Research/ Historische Sozialforschung*, pp. 33-45.

Henman, P.W.F. (2022), "Digital social policy. Past, present and future", *Administration and Society*, Vol. 52 No. 1, pp. 31-56.

Houston, J.B., Hawthorne, J., Perreault, M.F., Park, E.H., Goldstein Hode, M., Halliwell, M.R., Turner McGowen, S.E., Davis, R., Vaid, S., McElderry, J.A. and Griffith, S.A. (2015), "Social media and disasters: a functional framework for social media use in disaster planning, response, and research", *Disasters*, Vol. 39 No. 1, pp. 1-22, doi: 10.1111/disa.12092.

Hu, P.J.H., Chen, H. and Hu, H.F. (2009), "Law enforcement officers' acceptance of advanced e-government technology: a survey study of COPLNK mobile", *Proceedings of the 11th International Conference on Electronic Commerce*, pp. 160-168, doi: 10.1145/ 1593254.1593278.

Huws, U. (2020), *Reinventing the Welfare State: Digital Platforms and Public Policies*, Pluto Press, London.

Jansson, G. and Erlingsson, G.Ó. (2014), "More e-government, less street-level bureaucracy? On legitimacy and the human side of public administration", *Journal of Information Technology and Politics*, Vol. 11 No. 3, pp. 291-308, doi: 10.1080/19331681.2014.908155.

Jilke, S. and Tummers, L. (2018), "Which clients are deserving of help? A theoretical model and experimental test", *Journal of Public Administration Research and Theory*, Vol. 28 No. 2, pp. 226-238, doi: 10.1093/jopart/muy002.

Jorna, F. and Wagenaar, P. (2007), "The 'iron cage'strengthened? Discretion and digital discipline", *Public Administration*, Vol. 85 No. 1, pp. 189-214, doi: 10.1111/j.1467-9299.2007.00640.x.

Kazepov, Y. and Barberis, E. (2013), "Social assistance governance in Europe: towards a multilevel perspective", in *Minimum Income Protection in Flux*, Palgrave Macmillan UK, London, pp. 217-248.

Landsbergen, D. (2004), "Screen level bureaucracy: databases as public records", *Government Information Quarterly*, Vol. 21 No. 1, pp. 24-50, doi: 10.1016/j.giq.2003.12.009.

Larsson, A. and Teigland, R. (2020), *The Digital Transformation of Labour*, Taylor & Francis.

Layne, K. and Lee, J. (2001), "Developing fully functional E-government: a four stage model", *Government Information Quarterly*, Vol. 18 No. 2, pp. 122-136, doi: 10.1016/s0740-624x(01) 00066-1.

Leonardi, D., Paraciani, R. and Raspanti, D. (2021), "A strategy is necessary. The policy-client conflict within different relational asymmetries: a comparison at the street level", *International Journal of Sociology and Social Policy*, Vol. 41 Nos 13/14, pp. 81-95, doi: 10.1108/ijssp-07-2021-0188.

Manzo, C. and Paraciani, R. (2022), "Digital welfare platforms. A literature review", Working Paper WEPLAT PROJECT, available at: https://www.weplat.it/report/

Meyer, J.W. and Rowan, B. (1977), "Institutionalized organization: formal structure as myth and ceremony", *American Journal of Sociology*, Vol. 83 No. 2, pp. 340-363.

Nograšek, J. and Vintar, M. (2014), "E-government and organisational transformation of government: black box revisited?", *Government Information Quarterly*, Vol. 31 No. 1, pp. 108-118, doi: 10.1016/j.giq.2013.07.006.

Paraciani, R. (2023), *Labour Inspectors in Italy: between Discretion and Institutional Pressure*, Palgrave Macmillan, London.

Paraciani, R. and Rizza, R. (2021), "When the workplace is the home: labour inspectors discretionary power in the field of domestic work - an institutional analysis", *Journal of Public Policy*, Vol. 41 No. 1, pp. 1-16, doi: 10.1017/s0143814x19000254.

Pérez-Morote, R., Pontones-Rosa, C. and Núñez-Chicharro, M. (2020), "The effects of e-government evaluation, trust and the digital divide in the levels of e-government use in European countries", *Technological Forecasting and Social Change*, Vol. 154, 119973, doi: 10.1016/j.techfore.2020.119973.

Raaphorst, N. and Loyens, K. (2020), "From poker games to kitchen tables: how social dynamics affect frontline decision making", *Administration and Society*, Vol. 52 No. 1, pp. 31-56.

Reddick, C.G. (2011), "Citizen interaction and e-government: evidence for the managerial, consultative, and participatory models", *Transforming Government: People, Process and Policy*, Vol. 5 No. 2, pp. 167-184, doi: 10.1108/17506161111131195.

Riccucci, N.M. (2005), "Street-level bureaucrats and intrastate variation in the implementation of temporary assistance for needy families policies", *Journal of Public Administration Research and Theory*, Vol. 15 No. 1, pp. 89-111.

Røhl, U.B.U. (2022), "*Automated, administrative decision-making and good administration: friends, foes or complete strangers?*", Aalborg University, available at: https://vbn.aau.dk/ws/portalfiles/portal/549540893/PHD_UBUR.pdf

Rowland, S. (2006), *The Enquiring University*, McGraw-Hill Education, London.

Sager, F., Thomann, E., Zollinger, C., van der Heiden, N. and Mavrot, C. (2014), "Street-level bureaucrats and new modes of governance: how conflicting roles affect the implementation of the Swiss ordinance on veterinary medicinal products", *Public Management Review*, Vol. 16 No. 4, pp. 481-502, doi: 10.1080/14719037.2013.841979.

Saruis, T. (2015), *Gli operatori sociali nel nuovo welfare: tra discrezionalità e responsabilità*, Carocci, Rome.

Snellen, I. (2002), "Electronic governance: implications for citizens, politicians and public servants", *International Review of Administrative Sciences*, Vol. 68 No. 2, pp. 183-198, doi: 10.1177/0020852302682002.

Tummers, L. and Bekkers, V. (2014), "Policy implementation, street-level bureaucracy, and the importance of discretion", *Public Management Review*, Vol. 16 No. 4, pp. 527-547, doi: 10.1080/14719037.2013.841978.

van Berkel, R. (2023), "The changing role of frontile employment advisors", in *Handbook of Labour Market Policy in Advanced Democracies*, Edwar Elgar Publishing, pp. 374-386.

Veale, M., Van Kleek, M. and Binns, R. (2018), "Fairness and accountability design needs for algorithmic support in high-stakes public sector decision-making", *Proceedings of the 2018 Chi Conference on Human Factors in Computing Systems*, April, pp. 1-14.

Vitalis, A. and Duhaut, N. (2004), "NTIC et relation administrative: de la relation de guichet à la relation de réseau", *Revue Française d'Administration Publique*, Vol. n o 110 No. 2, pp. 315-326, doi: 10.3917/rfap.110.0315.

Weller, J.M. (2012), "An ethnographer among street-level bureaucrats and new public management", *Research Seminar in Applied Economics and Management*, Vols 12-33.

Wihlborg, E., Larsson, H. and Hedström, K. (2016), "'The computer says No!'-A case study on automated decision-making in public authorities", *In the 2016 49th Hawaii International Conference on System Sciences (HICSS)*, IEEE, pp. 2903-2912.

Further reading

Buffat, A. (2015), "Street-level bureaucracy and e-government", *Public Management Review*, Vol. 17 No. 1, pp. 149-161, doi: 10.1080/14719037.2013.771699.

Dunleavy, P., Margetts, H., Bastow, S. and Tinkler, J. (2008), "Australian e-government in comparative perspective", *Australian Political Studies Association*, Vol. 43 No. 1, pp. 13-26, doi: 10.1080/10361140701842540.

Lipsky, M. (1980), *Street Level Bureaucracy. Dilemmas of the Individual in Public Services*, Russel Sage Foundation, New York.

Longo, F. and Maino, F. (2022), *Platform Welfare: New Logics for Innovating Social Services*, EGEA SpA, Milano.

Trauner, G. and Bekkers, V. (2002), "E-government: information and communication technology. Public Administration. Brussels: IIAS ".

Corresponding author

Rebecca Paraciani can be contacted at: rebecca.paraciani2@unibo.it