Through Foucault to a political geography of mediation in the information age

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Abstract. Drawing on Michel Foucault's understanding of power and governmentality, this paper advances an initial reflection aimed at developing a "political geography of mediation", concerned with the question of what "makes" and what "happens within" the imbrications of power and space. This discussion is structured into three main parts. Firstly, the paper considers two levels on which Foucault addresses the question of how (through what means) power is exercised and constituted, relating to the techniques of power on the one hand and to the discursive regimes underpinning and shaping these techniques on the other. Secondly, two ideal typical spatial logics of power are discussed, relating to what Foucault calls apparatuses of discipline and apparatuses of security. This will show how thinking about mediation in a Foucauldian sense allows for a conceptualisation of the imbrications of space and power. Thirdly, the paper advances one specific proposition of how to further pursue from a contemporary geographical perspective Foucault's "technical" approach to the functioning of power. In so doing, the paper develops a programmatic reflection on power, space and regulation in the information age.

1 Introduction

> The analysis of micro-powers is not a question of scale, and it is not a question of a sector, it is a question of a point of view. (Foucault, 2008 [2004], 186)

In recent years, Michel Foucault's contribution to geography has sparked a number of publications and debates (Hannah, 1997; Elden, 2001, 2003, 2007; Crampton and Elden, 2007; Huxley, 2006, 2008; Philo, 2012). The ground for this engagement with Foucault has been laid by the discipline's reorientation from its essentialist focus on space in the 1960s and 70s to the predominant study of socio-spatial relations, seen by some as a "relational turn" (Anderson et al., 2012, 171). For political geography more specifically, this reorientation has paved the way for a sustained discussion of Foucault's relational conception of power. Foucault has been mobilised prominently in the discipline's attempts to move beyond its longstanding focus on state power and state territory, to question and conceptualise, more generally, different scopes, modes and means of power in their relation to space (Raffestin, 1980; Philo, 1992; Allen, 2003, Painter, 2008).

The present paper connects with these literatures in discussing Foucault's contribution to contemporary political geography. My purpose is to take the now well-established understanding of power as relational one step further: taking Foucault seriously in political geography, this paper argues, requires not merely a recognition of the relational nature and spatial dimension of power, but, furthermore, demands a systematic focus on the mediating tools and procedures shaping and underpinning the exercise of power. Thus the acknowledgement of power as relational is important, but not enough. What is needed are "tools of study" (Foucault, 1982, 778) that allow the critical investigation of how "power is put into action" (Foucault, 1982, 788). Drawing on Foucault, attention should thus be paid to the means through which power is exercised (Foucault, 1982, 786), as an analytical lens through which power in its relationality and processuality can be scrutinised.

More specifically, the paper considers two levels on which Foucault addresses the question of how (through what

means) power is exercised and constituted, relating to the "techniques of power" on the one hand and to the "discursive regimes" underpinning and shaping these techniques on the other. Mirroring Miller and Rose's distinction between "technologies" and "rationalities" of governmentality (Miller and Rose, 2008), the two levels exemplify that power as relational should be taken merely as the starting point, rather than as the quintessence of Foucault's thinking. What Foucault offers, such is my main point here, is indeed a way to move "into" the category of the "relational", thus inviting a type of political geography concerned with the question of what in fact happens within the imbrications of power and space.

This stance derives strong inspiration from Claude Raffestin's mediation-centred work on human territoriality (Raffestin, 1980, 2012). Asking for a type of geography focused on the abstract and the concrete mediators of socio-spatial relations, Raffestin himself was one of the earliest geographers to engage with Foucault's relational conception of power (Raffestin, 1980, 2007). Yet Raffestin does not systematically elaborate upon Foucault's focus on techniques and discursive regimes as a way into the concept. This paper provides a starting point for precisely such a reading of Foucault. At its core, this endeavour also conveys an ambition to open up a more systematic geographical reflection on the concept of "mediation", as a way to a "more than relational" conception of the co-constitution of power and space (Anderson et al., 2012; Allen, 2012). "More than relational", here thus implies a move "into the relation" through the study of the very dynamics unfolding from the active "making" of power relations, in and through the mobilisation of heterogeneous means (i.e. techniques and discourses). It is in this sense that this paper offers an exploratory discussion of the possibility of what could be called a "political geography of mediation". Advancing one more step in this endeavour, the paper also puts forward a specific proposition with regard to how Foucault's technical approach to the functioning of power may be pursued further from a contemporary political-geographical perspective. In so doing, the paper develops a programmatic reflection on power, space and regulation in the information age.

2   "Mediation" in political geography

The idea that relations rely on (and are shaped by) particular means has long been present in political-geographical work, albeit in a rather implicit, often deterministic and chronically under-theorised way. From its earliest stages, such work has focused, perhaps most notably, on the role of communication and transportation technologies in the spatial distribution of political power – ranging from Halford J. Mackinder's "heartland theory" (Mackinder, 1904) to Harold A. Innis' *Empire and Communications* (Innis, 1950). From a viewpoint centred more broadly on the social production of space,

thus moving beyond a strictly "political" understanding of the power-space relationship, the concept of mediation is also mobilised in Henri Lefebvre's ground-breaking *The Production of Space* (Lefebvre, 1991).

> A social space cannot be adequately accounted for either by nature (climate, site) or by its previous history. Nor does the growth of the forces of production give rise in any direct causal fashion to a particular space or a particular time. Mediations, and mediators, have to be taken into consideration: the action of groups, factors within knowledge, within ideology, or within the domain of representations. Social space contains a great diversity of objects, both natural and social, including the networks and pathways which facilitate the exchange of material things and information. (Lefebvre, 1991, 77)

Bringing together praxis, semiotics and materiality, this quote underlines Lefebvre's understanding of social space as the outcome of mediators and mediations. At a later point, Lefebvre, in turn, also acknowledges the mediating role of space in the constitution and regulation of society (Lefebvre, 1991, 175). Undoubtedly, these comments would deserve some further discussion, given that Lefebvre is not usually seen as a thinker overly concerned with mediation. However, at this point I merely use Lefebvre to illustrate how differing approaches have touched on the question of "through what" power and space are connected and co-constituted.

Following Lefebvre, some geographers (especially in Francophone and Italian geography) have developed a more systematic, mediation-focussed conception of power and space in their co-constitutive and mediated relationship (for example Raffestin, 1980, 2012; Turco, 2010; Miller and Pano, 2009). In many of these endeavours, emphasis has been placed on linguistic and wider socio-cultural mediations of socio-spatial relations. One of the most systematic attempts to conceive a type of geography focused on the instruments, codes and "systems of signs" that are mediating socio-spatial relationships can be found in the aforementioned "geography of territoriality", developed by Claude Raffestin (Raffestin, 1980, 2012). Raffestin defines mediators as abstract and concrete tools of apprehension of and relation to alterity, exteriority and interiority (Raffestin, 2012, 128). Throughout his oeuvre, he argues for a systematic shift in the focus of geographical research from space itself to the material and immaterial means that are mobilised and manipulated for the maintenance of socio-spatial relations. "Mediators play a role in the processes of production as well as in those of representation. They are not simple intermediary instruments but complex ensembles manipulated by actor-networks, as Latour would say" (Raffestin, 2012, 133). Thus mediators, for Raffestin, not only make relations possible, but also shape and limit them.

Elsewhere, I have outlined in more detail the merits of Raffestin's "geographical theory of mediation" (Klauser, 2012). Here, I simply take Raffestin as a source of inspiration in my endeavour to revisit Michel Foucault's specifically technical understanding of power and relationality. My questions are "What can contemporary political geography find in Michel Foucault's technical understanding of power?" and "From what thematic and empirical viewpoints can Michel Foucault's approach be applied and further pursued today in order to explore and to conceptualise the imbrications of power and space in the information age?"

One further comment should be made before outlining more specifically the structure of this paper. Namely, I am speaking here of "political geography" and not of "human geography" more broadly because the paper deals in particular with the problematic of power and space. However, and others have insisted on this before (Raffestin, 1980), a relational conception of human geography implies by definition an attention to the notion of power if we accept that relations are "sites" of power in a Foucauldian sense. Political and human geography differ in emphasis rather than in kind.

3 Approach

In what follows, I pursue a reflection on the possibility of a political geography of mediation, through an initial reading of Foucault's theory of governmentality, as developed in his lectures at the Collège de France in 1977–1978 and 1978–1979 (Foucault, 2007c, 2008). My discussion is structured into three main parts. Firstly, I consider two levels on which Foucault addresses the question of how (through what means) power is exercised and constituted, relating to the techniques of power on the one hand and to the discursive regimes underpinning and shaping these techniques on the other. Secondly, I discuss two ideal typical spatial logics of power, relating to what Foucault calls apparatuses [*dispositifs*] of discipline and apparatuses of security (Foucault, 2007c). Doing so will show how a Foucauldian view of mediation allows for the conceptualisation of the imbrications of space and power. Thirdly, I advance one personal proposition for how to further pursue Foucault's technical approach to the functioning of power, from a contemporary political-geographical perspective. In this way, the paper develops a programmatic reflection concerned with the logics, functioning and implications of novel techno-mediated forms and formats of regulation and control, inherent in the digitisation and informatisation of present-day life.

4 Foucault's way into the "relational"

Foucault's relational approach to power is of great importance because it offers an understanding of power in its ubiquitous, diffuse and interpersonal functioning and genesis. However, what is often forgotten is how Foucault in fact moves "into" the category of the relational, in his focus on the techniques and discursive regimes that mediate the exercise of power. Both levels deserve some discussion here, for they lie at the very heart of what I see as Foucault's basic contribution to a contemporary political geography of mediation.

4.1 Techniques of power

Foucault aims at the study of "power in action", to paraphrase Latour (1987). Power is explained in its making, rather than taken as an explaining variable in itself.

> I wanted to see what concrete content could be given to the analysis of relations of power – it being understood, of course, and I repeat it once again, that power can in no way be considered either as a principle in itself, or as having explanatory value which functions from the outset. The term itself, power, does no more than designate a [domain] of relations which are entirely still to be analyzed, and what I have proposed to call governmentality, that is to say, the way in which one conducts the conduct of men, is no more than a proposed analytical grid for these relations of power. (Foucault, 2008, 186)

In terms of perspective, Foucault does with power what actor network theory (ANT) does with the "social" (Latour, 2005). In its focus on the techniques of power, however, Foucault's "method of decipherment" and "level of analysis" differs from ANT's attention to the mediating role of networked human and non-human entities (people, tools, objects, etc.). Rather than "mapping" the networked arrangements of human and non-human entities, Foucault brings to the fore the dynamics unfolding from the milieu-specific "making" of power, mediated through the deployment of heterogeneous procedures and techniques.

> It [power] is a set of procedures, and it is as such, and only as such, that the analysis of mechanisms of power could be understood as the beginnings of something like a theory of power (Foucault, 2007c, 2). These mechanisms of power, these procedures of power, must be considered as techniques, which is to say procedures that have been invented, perfected and which are endlessly developed. There exists a veritable technology of power or, better, powers, which have their own history. (Foucault, 2007a, 158)

The study of various techniques of power – in their genealogies, functioning and effects – runs like Ariadne's thread through Foucault's writing, engaging with different milieux (the hospital, the prison, the army, the monastery) and eras (Greek antiquity, the Middle Ages, liberalism). For contemporary political geography, there are at least three major

implications of Foucault's technical approach to power that need highlighting.

Firstly, Foucault invites a political geography that is grounded in the study and conceptualisation of the functioning of power in specific milieux: in approaching society as an "archipelago of different powers" (Foucault, 2007a, 156), Foucault highlights techniques of power as being specific to particular places and moments (the 18th century hospital, the Greek agora, the modern penitentiary system). This concern for studying the functioning of power in and through particular settings resonates strongly with contemporary debates on the scope and scale of the political in geography, paralleled by reiterated claims for the discipline to move beyond its still predominant focus on state power (often approached in a primordial and unitary sense). It also opens up novel possibilities and areas for empirical investigation into the problematic of power and space that go far beyond the usual *terrain* in political geography.

Secondly, and following from the first point, Foucault's performative and mediation-focussed conception of power suggests a need for a political-geographical reflection on the functioning of power in its internal tensions and heterogeneity. As Foucault stresses,

> We should keep in mind that heterogeneity is never a principle of exclusions; it never prevents coexistence, conjunction, or connection. … I suggest replacing this dialectical logic with what I would call a strategic logic. A logic of strategy does not stress contradictory terms within a homogeneity that promises their resolution in a unity. The function of strategic logic is to establish the possible connections between disparate terms which remain disparate. The logic of strategy is the logic of connections between the heterogeneous and not the logic of the homogenization of the contradictory. (Foucault, 2008, 42)

Thus for Foucault, power is exercised within and through the combination, juxtaposition and liaison of different techniques, anchored in different genealogies and "cosmologies" (see also Dillon, 2007, 43). This means on the one hand that power in action is never unitary, not only because it is specific to particular milieux, but also because it mobilises heterogeneous techniques, merging in consensus and conflict within a particular context of organisational, historical and geographical specificity. On the other hand, it implies that the two exemplary apparatuses of power discussed below – discipline and security – are not entirely separate, but overlap in certain areas of their techniques and rationalities.

Thirdly, Foucault's mediation-focussed approach to power provides a solid overall framework within which to place and to address the core concern of political geography, relating to space as both product and producer of power in exertion. Throughout his oeuvre, Foucault shows that the production and organisation of space must in itself be understood as a technique of power. He does so from various perspectives, touching on the role of spatial organisation in the modern penitentiary system, the curative ends of hospital architecture, etc. (Foucault, 1984).

> The architecture of the hospital must be the agent and instrument of cure … hospital architecture becomes an instrument of cure in the same category as a dietary regime, bleeding or other medical action. (Foucault, 2007b, 149)

The understanding of space (in its meanings, normative-regulatory weight and morphology) as a mediator of social life is not new for political geography. Yet Foucault offers a truly original contribution to the existing literatures, as will be demonstrated at a later stage of this paper with a view to Foucault's understanding of the differing spatialities of power in apparatuses of discipline and security (Foucault, 2007c).

4.2 Discursive regimes

If Foucault approaches power as an ensemble of milieu-specific, heterogeneous techniques, he does so through a study of discursive materials (Laurier and Philo, 2004; Hannah, 2007; Philo, 2012). On a methodological level, Foucault's governmentality lectures mirror his earlier work on sexuality and the "order of things" (Foucault, 1970). Thus in exploring power in action, Foucault's focus lies on the "discursive regimes" (he also speaks of "discursive formations" and "regimes of truth") associated with, underpinning and motivating particular techniques to "act". Foucault's "history of the actual techniques of power" (Foucault, 2007c, 8), in sum, is a history of the thoughts and discourses that mediate the practices and experiences of these techniques. At this point, it is not possible to give an exhaustive interpretation of this methodological and conceptual stance. I merely want to indicate two reasons why Foucault's focus on discourse and thought is important for my task of considering a contemporary political geography of mediation.

Firstly, Foucault's insistence on approaching techniques of power through a study of its underpinning discursive regimes elucidates that particular milieux, for Foucault, are always conceived as matrixes of "organisation and knowledge" (Foucault, 2007d, 182). For Foucault, thought and practice, knowledge and technique are simultaneously present in, and mutually constitutive of, the exercise of power. Thus historically situated apparatuses of power – given ensembles of heterogeneous (discursive and non-discursive) techniques (Foucault, 1980) – always, by definition, involve both abstract and concrete realms.

> The point of all these investigations … is to show how the coupling of a set of practices and a regime of truth form an apparatus (dispositif) of knowledge-power. (Foucault, 2008, 19)

This highlights then, secondly, that a mediation-centred conception of political geography, inspired by Foucault, connects praxis, techniques and semiotics. A geographical theory of power, in this sense, must consider both abstract and concrete mediators and mediations. In Foucault's own work, there are many examples of how such line of thought indeed elucidates differing spatialities of power.

5 Spatialities of power

Perhaps one of the most significant examples in Foucault's work, relating to the complex imbrications of power and space, is to be found in his 1977/78 lectures *Security, Territory, Population*. Foucault here distinguishes between legal, disciplinary and security apparatuses, to study three ideal typical "arts of governing" (Foucault, 2007c, 92), understood as historically situated sets of techniques for organising and regulating the two fundamental objects of government: population and territory. In sum, Foucault advances a conceptual model concerned with the question of how techniques of governing relate to their objects, stakes and resources.

For Foucault, legal, disciplinary and security apparatuses differ in multiple ways and on multiple levels (in terms of their treatment of the uncertain, their relationship to normalisation and reality, their specific techniques, etc.). At this point, I merely propose an initial discussion of some of the aspects that are relevant in discerning the spatial logics and articulations of disciplinary and security apparatuses, in order to demonstrate how thinking about mediation in a Foucauldian sense allows for a conceptualisation of the mutual constitution of space and power.

5.1 Disciplinary apparatuses

Foucault sees discipline as a particular economy of power that characterises 17th and 18th century governmentality in European modernity – shaping, working through and developing from a range of milieux such as hospitals, schools, army barracks and prisons. Discipline, in all of these settings, designates a specific way of managing multiplicities through techniques of individualisation.

> School and military discipline, as well as penal discipline, workshop discipline, worker discipline, are all particular ways of managing and organizing a multiplicity, of fixing its points of implantation, its lateral or horizontal, vertical and pyramidal trajectories, its hierarchy, and so on. The individual is much more a particular way of dividing up the multiplicity for a discipline than the raw material from which it is constructed. Discipline is a mode of individualization of multiplicities. (Foucault, 2007c, 12)

Thus for Foucault, disciplinary governing relates in focus and ambition to the normalisation and management of the "very atoms of society, which is to say individuals" (Foucault, 2007a, 159). It fundamentally relies on a set of mediating techniques aimed at placing and producing the individual soldier, prisoner, patient, etc. within a predefined model of normativity (Foucault, 2007c, 56–57). Consequently, the disciplinary problem of space is one of spatial enclosure, fixity, isolation and segmentation, aimed at the "constitution of an empty, closed space within which artificial multiplicities are to be constructed and organized" (Foucault, 2007c, 17). In *Discipline and Punish* (Foucault, 1977), Foucault explores this configuration and spatial rationality with particular reference to the figure of the Panopticon, as a paradigmatic spatial model of disciplinary power in action.

5.2 Security apparatuses

In contrast to this disciplinary model, Foucault sets the apparatus of security, developing a reflection on the forms and techniques of normalisation that characterise governmentality in contemporary liberalism. The regulatory aim of security, for Foucault, is to let things happen whilst also regulating and monitoring them (Foucault, 2007c, 41). The limit of the acceptable is not merely conditioned by a binary opposition between the permitted and the prohibited, but adapted gradually to a given reality, in function of careful calculations and through complex procedures. In this type of governmentality, reality is approached from a techno-scientific viewpoint as an ensemble of intelligible and manageable entities and conditions of governing. The question at stake is how to know, to regulate and to act upon this reality within a "multivalent and transformable framework" (Foucault, 2007c, 20). The spatial logic of security, therefore, is not one of individualisation, enclosure and fixity, but one of managing populations as a whole, in their openness and fluidity. Essentially, spaces of security respond to the need to regulate, optimise and manage circulations, "in the very broad sense of movement, exchange, and contact, as form of dispersion, and also as form of distribution" (Foucault, 2007c, 64).

> The problem is not only that of fixing and demarcating the territory, but of allowing circulations to take place, of controlling them, shifting the good and the bad, ensuring that things are always in movement, constantly moving around, continually going from one point to another, but in such a way that the inherent dangers of this circulation are cancelled out. (Foucault, 2007c, 65)

To summarise, spatial organisation in the two models (security and discipline) differs, most fundamentally, on the level of mediation. In each case, space is mediated through differing techniques and discursive regimes, and, in turn, mediates the exercise of power in differing ways. Thus Foucault offers not merely a spatial grammar of power – relating to enclosure and openness, circulation and fixity, internal and external structuring – but, more importantly for my task here, a

framework for conceptualising space in its mediated and mediating relation to power. Here, political geography finds its key concern approached and conceptualised through the lens of mediation.

6 Continuations

Drawing upon Michel Foucault's approach to governmentality and power, this paper invites further reflection on the concept of mediation in contemporary political geography. Clearly, much more may be done to sharpen and extend the arguments outlined above. Resonances and dissonances between Foucault and other mediation-focused work, inspired for example by Deleuze (1990) or by actor-network theoretical approaches (Latour, 2005), should be explored more carefully from a conceptual viewpoint, but also established more firmly through first-hand empirical research.

Following on from this, the remainder of this paper puts forward a particular thematic proposal relating to issues of power and space in a digitised world, which indicates one possibility for future research within the realm of a political geography of mediation. More specifically, I will outline the analytical value of Michel Foucault's multifaceted enquiries into historically situated apparatuses of power in their regulatory and spatial dynamics for the investigation of the logics, functioning and implications of novel techno-mediated techniques of regulation and control, inherent in the digitisation and informatisation of present-day life. This programmatic reflection should also be taken as a personal statement of intent.

6.1 Mediation, power and space in a digitised world

Information technologies have in recent years permeated many different areas of everyday life. They have also resulted in ever increasing possibilities of tracking and profiling our daily activities. Think, for example, of the rapidly expanding use of RFID chips in tickets and goods, of the increased number of surveillance cameras in public places, of computerised loyalty systems in the retail sector, of geo-localised smart-phone applications, or the development of increasingly "smart" urban infrastructures from transport systems to electricity grids. The information age has spawned novel techno-mediated techniques of regulation-at-a-distance that re-shape a large variety of milieux and phenomena, from policing and access control to city administration, mobility and energy management and consumption monitoring.

These examples reiterate the need for a systematic, politico-geographical "programme of reflection" aimed at exploring, conceptualising and problematising the contemporary IT-based techniques of regulation in their mediating and mediated relation to power and space. My strategic hypothesis is that one possible organising framework for this endeavour can be found in Michel Foucault's technical approach to governmentality and power. To further substanti-

ate this claim, three contributions that Foucault offers to the study of power, space and regulation in the present-day world should be outlined.

6.2 Perspective: governing through code

Firstly, and to reiterate, Foucault's contribution to a political geography of mediation that focuses on contemporary techniques of regulation and control is above all one of perspective. Foucault demonstrates again and again that power must be approached through the study of its mediations and mediators rather than as the property of specific actors, thus shifting the focus of analysis from the subject or outcome of power to the (mediated) process itself. Applied to the context of contemporary "techno-politics" (Mitchell, 2002), this naturally directs our attention to the novel technologies, rationalities and forms of expertise that shape and underpin the organisation and management (Foucault would speak of "governmentalities") of everyday life in the information age.

More specifically, the key point about contemporary, digitised techniques of management and organisation is software, understood here as predefined lines of code that process and analyse data, with a view to generating an automatic response. Software constitutes a form of "programmed awareness" (Kitchin and Dodge, 2011) that increasingly "mediates, saturates and sustains contemporary capitalist societies" (Graham, 2005, 562). Software indeed works on all spatial scales; it is intrinsically woven into the texture of everyday life (from ubiquitous computing in buildings to "smart clothing"); it is embedded in both inner- and intra-urban infrastructures (from electronic ticketing systems to smart electricity grids), and it permeates global communication networks (from internet monitoring to "practice aware" smart-phone applications) and inter- and intra-urban mobility control and management techniques (computerised traffic and navigation systems, etc.).

Yet whether the software-based ordering and analysis of data aim at greater efficiency, convenience or security, they do imply invisible processes of classification and prioritisation, which may affect the life chances of individuals and social groups in ways that are often unseen by the public and that easily evade conventional democratic scrutiny. Software-mediated techniques of regulation are never neutral, by definition, for they imply predefined codes that are used to assess people's profiles, risks, eligibility and levels of access to a whole range of spaces and services, thus installing a new kind of "automatically reproduced background" in everyday life (Thrift and French, 2002, 309). As Graham has put it, "code-based technologized environments continuously and invisibly classify, standardize, and demarcate rights, privileges, inclusions, exclusions, and mobilities and normative social judgements across vast, distanciated domains" (Graham, 2005, 563).

Thus from a Foucaldian, mediation-focussed perspective the critical power issues to address relate to the codes

themselves. Which codes are involved? How are socio-spatial practices and relationships translated into code? How are these codes applied? What particular intentions and strategies do the codes aim to fulfil? And how do these codes contribute to the orchestration of everyday life? The political geography of mediation I have in mind conveys at its very core a deep concern for the opportunities and problems associated with present-day forms and formats of "governing through code".

6.3 Space: surveillance beyond enclosure

Secondly, Foucault is of great interest for the development of a political-geographical reflection on IT-mediated governmentality in a digitised world because of his noteworthy and repeated focus on space, in its mediating and mediated relationships with power. Foucault's various suggestions on the subject elucidate powerfully that the functions and logics of particular techniques of power, their scope, their impact and the risks they pose cannot be understood without referring to the spaces concerned with and created by their exertion and performance. More specifically, Foucault's distinction between apparatuses of "discipline" and "security", discussed above, offers a promising analytical heuristic for the examination of the differing spatialities of power inherent in contemporary IT-mediated techniques of control and normalisation. More explanation is needed on this point.

As shown above, Foucault distinguishes between discipline and security "by considering the different ways in which they deal with and plan spatial distributions" (Foucault, 2007c, 56). More specifically, Foucault associates discipline, aimed at individualisation, with spatial enclosure, fixity and segmentation, whereas the spatial problem of security, following the need to govern multiplicities as a whole, relates to the management of openness, fluidity and circulations. Elsewhere, I have mobilised these contrapuntal pairs of "spatial logics of power" to study the differing spatialities of high-tech surveillance in the context of sport mega-events (Klauser, 2013). This investigation has explored event security not only in its disciplinary dynamics – to enclose and to fix specific portions of space, thus fragmenting the urban environment into a number of access-controlled and internally structured spatial enclaves – but also in its "security" aspect, relating to the need to open up the event city and to manage flows of people and objects in flexible, differentiated and adaptable ways. To summarise, from a viewpoint centred on how differing techniques of power produce space and how differing spatial organisations in turn mediate the exercise of power, the event city has been portrayed as a complex system of separations *and* connections, in which different spatial logics of surveillance call on each other, support each other, modify and shape each other, but also conflict with each other in ceaseless reciprocity.

Such kinds of analyses should be extended with a view to embarking on a broader theoretical project, aimed at con-

ceptualising the intersecting and conflicting spatialities of IT-mediated techniques of power in the present-day world. A programme of reflection of this type would also quite naturally incorporate the growing body of work that highlights the intertwined pair of impulses to facilitate, accelerate and promote flows of people and objects on the one hand, and to reinforce enclosure and restrict accessibility on the other, as a defining expression of contemporary globalisation (Bauman, 1998, 88; Aas, 2005, 200). Such a geographical line of enquiry concerned with contemporary techniques of power in their complex and intertwined spatial logics and implications would, I trust, find a solid and coherent organising conceptual framework in Michel Foucault's approach to governmentality, relating to enclosure *and* openness, circulation *and* fixity, internal *and* external structuring.

Of course, the full demonstration of this claim is not a task that I can hope to achieve fully in this short paper. It will indeed be a central challenge for future research, focusing on different areas and milieux, to reveal the micro-articulations and intersections of contemporary IT-mediated control and filtering techniques, thus operationalising Foucault's approach to governmentality and power from a truly comparative empirical perspective. On these grounds, it will also be possible to further problematise the implications of the novel techniques of "governing through code" on contemporary socio-spatial practices and relations.

At this point, I simply want to insist on one more issue which I believe should be at the core of such research, relating to what Côté-Boucher has called an emerging "programme of government of movement" (Côté-Boucher, 2008). Whilst the world of software proliferation is certainly not a world without borders, as many studies have shown (Franzen, 2001; Klauser, 2010), I believe that the often forgotten key question today is not so much how IT-mediated regulation and control techniques create novel forms of rigid enclosure, but how contemporary "surveillant assemblages" (Haggerty and Ericson, 2000) embrace and manage circulations. For example, smart phones and other self-tracking devices work through the continuous localisation of mobile people and objects (Dodge and Kitchin, 2007; Buhr, 2003). Many of these devices then offer place-, user- and practice-specific information and services, thus organising, guiding and regulating flows and presences of people and objects on the move. In the field of smart urban infrastructure, similar spatial dynamics can be found, responding to the need to manage the "city" as an interconnected, digitised and "technologically empowered" (IBM, 2010) system of connections, processes and flows. What matters in this "economy of power" is the regulation and normalisation of circulations, rather than the fixing and enclosing of particular places, people, functions and/or objects.

Future geographical research should further pursue this reflection, so as to provide more detailed accounts of how exactly emerging geographies of regulation-at-a-distance work to align the circulation of mobile bodies, data, objects and

services with localisation, identification, verification and authentication controls, and of how the practices and techniques of surveillance engage with the key infrastructural networks that aim to channel and filter movements within and between cities. On a personal level, I expect a fuller development of this argument to form the subject of a separate work, dealing with the surveillance dynamics inherent in contemporary "smart-cities" initiatives.

6.4   Rationality and Normalisation: beyond rigidity

Thirdly, Foucault's distinction between "discipline" and "security" not only allows the interrogation of the interacting spatialities of contemporary IT-mediated control and management techniques, but also the study of its intertwined functional and normative logics. Foucault thus also offers a promising conceptual tool box for the study of the aims and rationalities of "power in action" in the present-day world of IT regulation and mediation.

This paper is certainly not the first to make this claim. However, relevant academic engagements with Foucault in both geography (Hannah, 1997; Elden, 2003) and surveillance studies (Gandy, 1993; Norris and Armstrong, 1999), have focused almost exclusively on Foucault's analysis of disciplinary power, exemplified in his discussion of the Panopticon in *Discipline and Punish* (Foucault, 1977). By contrast, the analytical value of Foucault's conceptualisation of "security" has yet to be fully appreciated. In what follows, I put forward a series of initial comments that represent a push in this direction.

Drawing upon Foucault's understanding of "discipline", contemporary surveillance and control are often understood as being externally imposed and rigid in focus and functioning (Foucault, 1977; Gandy, 1993; Norris and Armstrong, 1999). Whilst this conception can be appropriate for studying surveillance in the fields of policing, military drilling, school and prison discipline, etc., it is challenged in other cases. Consider, for example, recent developments in the field of smart urban infrastructures, which are channelled through visions of technology-induced progress and efficiency, sustainability and comfort. As IBM states in the context of its *Smarter Cities* programme,

> with recent advances in technology, we can infuse our existing infrastructures with new intelligence. By this, we mean *digitizing* and *connecting* our systems, so they can *sense*, *analyse* and integrate data, and respond *intelligently* to the needs of their jurisdictions. In short, we can revitalize them so they can become smarter and more efficient. (IBM, 2010) (my emphasis)

The quote exemplifies IBM's vision of the promises associated with the increased possibilities of digitisation, interconnection, analysis and integration of urban systems. From a viewpoint centred on the implied regulatory dynamics, this vision resonates with Michel Foucault's conceptualisation of security in different ways. IBM advocates a techno-mediated regulatory apparatus that approaches reality as an ensemble of perfectly intelligible, analysable and manageable patterns and regularities, as the basic entities and conditions of contemporary governmentality. Rather than imposing a rigid normative model onto a given reality, regulation and management in the IBM smarter-city vision thus start from the decipherment and analysis of reality itself. This decoding of reality relies on the rapidly increasing digitisation of everyday life, thus allowing the integration and interconnection of ever-wider circuits of information flow. The city is seen as an ever more transparent, extendable and adaptable "system of systems" (IBM, 2010).

This means that regulation in IBM's smarter-city vision does not start from a predefined understanding of the permitted and the prohibited, but from the study and identification of the different "normalities" (i.e. patterns, in IBM jargon) characterising a given reality. Consider by way of example the aim of smart electricity grids. What matters is not to prohibit or to prescribe the use of electricity at a given time in a rigid and predefined way; rather, regulation works through techniques of data gathering, processing and analysing that aim to identify the existing patterns of electricity consumption and production, so as to optimise the balance between and synchronisation of the two. The point is to make the consumption and production of electricity function better in relation to each other.

This type of regulation is very different to the one of discipline, which breaks down given multiplicities of activities, flows and people into individual entities, so as to make them correspond as fully as possible to a predefined normative model. Rather, regulation and normalisation in the smarter-city vision aim at the governing of multiplicities as a whole, through techniques that "work within reality, by getting the components of reality to work in relation to each other, thanks to and through a series of analyses and specific arrangements. … The norm is an interplay of differential normalities" (Foucault, 2007c, 47, 63).

There are two interrelated implications to highlight here. Firstly, this means that the relevant level and objective of regulation is not the individual entity – the detail – but a given ensemble of activities, circulations, etc., governed, optimised or "revitalised" as a totality. Of course, the level of the individual entity is still instrumental in this apparatus of power, in that it forms the starting point from which explanatory patterns (normalities) are derived through data analytics, but it is not the actual *telos* of regulation.

Secondly, IBM's smarter-city vision does not postulate a perfect and "final" reality ever to be fully achieved, but a constant process of optimisation derived from and taking place within a given reality, whose aims and conditions are constantly readapted and redefined, depending not only on the ever changing parameters of reality itself, but also on the shifting context and conditions of regulation (cost

calculations, availability of novel control techniques, etc.). Thus, management and regulation-at-a-distance in this vision rely on a "multivalent and transformable normative framework" (Foucault, 2007c, 20). IBM's smarter-city vision implies a mode of normalisation that is: (1) derived from reality, rather than imposed; (2) relative, rather than absolute; (3) flexible, rather than rigid; and (4) collective in scope and scale, rather than individual. Governing through code also means governing through calculation.

6.5   Final comments

Of course, the above comments are only a beginning of the road towards a richer and more elaborate reflection on contemporary IT-mediated techniques of power, in their spatialities and rationalities. My discussion did not attempt to provide anything more than a sketch of some of the key issues and questions to further explore, regarding the complex imbrications of power, space and regulation in the information age. Nevertheless, my aim was also to bring to the fore some of the most fundamental conceptual problems that need more attention in the future, by pointing, most notably, at the need to further explore and conceptualise the fluidity and flexibility of contemporary governing through code (both in spatial and normative terms). In this respect, I have stressed the importance and analytical value of Michel Foucault's distinction between security and discipline.

If indeed we may find a prolific conceptual toolbox in Foucault's approach to governmentality and power for addressing the mediated imbrications of power and space in the information age, the "conduct of men and things" in today's world of smart technology also presents a range of dynamics and issues that Foucault neither explored nor foresaw. For example, current technological developments entail huge implications that Foucault ignored with regard to the *automated* regulation and orchestration of everyday life (Thrift and French, 2002; Graham, 2005; Kitchin and Dodge, 2011). Thus in drawing upon Michel Foucault's conception of power, attention must also be paid to more recent regulatory dynamics that may in fact develop Foucault's conceptual and historical framework in very interesting ways.

Self-evidently, the true extent and nature of these developments and continuations of Foucault's conceptual approach can only be fully established by empirical research. What I am doing here is advocating precisely such an inquiry.

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