# Who should eventually govern IT?
# A Foucauldian perspective

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## Abstract

Recent changes in the technological and societal environments that surround organizations disrupt classic governance frameworks, designed by corporate and information technology (IT) managers to align IT uses with the organization's mission, strategy, and values. The formerly "sovereign territory" of IT departments has been invaded, jeopardized by inverse adoption logics and the autonomy of individual users. Thus questions of IT governance in the age of IT consumerization are highly pertinent. In response, this theory article proposes an alternative framework, relying on the philosophy of Michel Foucault and his concept of governmentality. On the basis of analogical reasoning, this article transfers knowledge about IT governance into a Foucauldian governmentality framework. It suggests that the use of IT is situated in a given government model that establishes specific regimes of truth. A *liberal model of IT governance* may provide a new concept to grasp the challenges associated with modern technological and societal environments in which companies recently have evolved. This paper is based on research works recently published in a leading IS journal[1]. Our goal with this communication is to present this model to the French-speaking IS community, in order to discuss its main implications and potential for empirical applications.

**Keywords:** IT governance, Michel Foucault, governmentality, information technology, consumerization

1 For anonymity reasons, the reference of this article will be communicated after the reviewing process (on condition that the paper is accepted). This new paper provides a different content, including a more detailed survey on the various existing governance models, as well as an extensive discussion on Foucault's governmentality models that we hope could be of interest for the French-speaking IS community.

Historically, corporate executives and information technology (IT) managers have decided which IT systems workers will use, as well as why, how, and when (Markus and Keil, 1994). Users have had no choice other than to accept organizational strategies, policies, and changes associated with IT. Executives and IT managers (notably, the chief information officer [CIO]) have acted with sovereign rights (Foucault, 2007) to enact strict policies regarding the types of IT systems and their applications within organizations. Many organizations, ant their IT departments in particular, apply IT governance mechanisms as "means of rationalizing, directing and coordinating an organization's IT-related decision making" (Huang et al., 2010, p. 288). Such governance designates a framework for "decision rights and accountability … for encouraging desirable behaviors in the use of IT" (Weill and Ross, 2004, p. 1), consistent with the organization's mission, strategy, values, norms, and culture (Weill, 2004), ultimately in support of the goal of obtaining value from IT (Weill and Ross, 2005). Yet the technological and societal environments of organizations have changed (Baskerville, 2011a, 2011b; Crowston et al., 2010; Behrens, 2009; Laga et el., 2012; Rentrop and Zimmermann, 2012; Bertin and Crespi, 2013; Leclercq-Vandelannoitte, 2015a, 2015b; Schmitz et al., 2016), thereby disrupting classic frameworks of IT governance. For example, in the technological environment, the emergence of consumerization (Ortbach et al., 2013) means that new IT tends to emerge first in the consumer market, then spread into business organizations, with substantial effects on companies (Gartner Group, 2012). The pervasiveness and availability of mobile devices and telecommunication networks also allow more people to use their personal mobile technologies in both private and professional contexts (Cummings et al., 2009; Gens et al., 2011; Niehaves et al., 2012). Consumer IT thus has infiltrated the workforce, to the point that "The invasion of consumer devices seems irrepressible. These technologies are so numerous, diverse in their functionality and affordable, that employees can't help but embrace them," and they also have generally "enter[ed] the workplace with employees, not under the company's auspices" (Harris et al., 2011, p. 2).

In this sense, the "sovereign territory" of IT departments has been invaded. The invaders take the form of an inversed adoption logic and autonomous users, which likely lead to non-coordinated IT usages. The resulting disorder in uses catalyzes concerns about data security and reliability, such that one study revealed that "80 percent of IT professionals opposed the use of consumer technologies in the workplace" (Harris et al., 2011, p. 3). Yet workers continue to bring and use their own technologies at work (Baskerville, 2011a, 2011b), with or without approval. Therefore, the dramatic change in the technological environment and the IT adoption logics is extremely challenging, issuing threats to the CIO's power and control over users. Broadly speaking, these changes undercut classic IT governance principles, raising challenging questions about who governs IT. Despite the importance of this topic for organizations, IT managers, practitioners, and researchers, few companies have effectively tackled the implications of these technological changes and users' behaviors for IT governance. The general lack of research on these issues also means that the question of IT governance in the age of IT consumerization remains unanswered (Baskerville, 2011a, 2011b; Crowston et al., 2010; Rowe, 2012).

We seek to address it by applying the concept of "governmentality," as introduced by French philosopher and political scientist Michel Foucault in a series of lectures on the "Birth of Biopolitics" that he gave at the College de France in 1977/1978 (Foucault, 2007, 2008). Governmentality refers to the manner used to "conduct the conducts," involving a range of techniques and practices performed by different actors to shape, guide, and direct individual and group behaviors and actions in specific directions. The Foucauldian governmentality approach is rooted in various disciplinary perspectives such as philosophy, history, and political science; it also has ramifications for organizational theory. Governmentality is deeply similar to various aspects of organization theory, including the notion of governance, but this analogy is rare in prior academic research (Clegg et al., 2002), especially in Information Systems research. It is all the more surprising that political perspectives, such as information

politics and analogies to the state and government (Davenport and Prusak, 1997), have proven valuable for investigating IT governance (Weill, 2004; Weill and Ross, 2004).

Therefore, we adopt an analogical process to link IT governance and Foucauldian governmentality, because analogies are not only central to creative thought (Boden, 2004) but also constitute "a distinctive feature of scientific and philosophical reasoning" (Bartha, 2013) that enable us to revisit and develop novel concepts (Gentner et al., 2001). Our aim is not to borrow from Foucauldian concepts (Hassan, 2011), but rather to build upon these concepts a new framework for governing IT in the forthcoming technological era. Specifically, applying the governmentality concept to IT governance means moving beyond the "who governs?" issue to ask relevant questions based on Foucault's renewed vision of power: "How can people be governed?" and "How can power be exercised?" This conceptual lens, applied to modern IT governance, produces two central research questions: How can IT systems be governed in modern organizations? How can modern users and their usages of IT be rendered governable?

Foucault's theory of governmentality includes three main types, reflecting various conceptions of power relations and regimes of truth that have emerged over time. In particular, Foucault emphasizes the development of liberal governmentality, which characterizes advanced liberal democracies, in which power is decentered and members are active in their own self-government. We suggest that the use of IT is situated in a model of government (Foucault, 2007, 2008), which comes with its own specific regime of truth. Accordingly, we propose a *liberal model of IT governance*, a new concept that we seek to apply to grasp the challenges associated with modern technological and societal environments in which companies recently have evolved.

In the following sections, we start with a review of literature on IT governance, to identify the relevant evolutions and challenges in these changing times. We then present an extensive literature review of Foucauldian governmentality theory, based on an in-depth analysis of Foucault's lectures at College de France. In a third section, we use this Foucauldian framework of governmentality as a backdrop and conceptual lens to interpret modern IT governance, revealing not only the evolutions of IT governance but also the issues at stake, through a renewed concept of IT governance. Finally, we infer some propositions to inform further research on IT governance and ask some open questions related to this model.

## 1. Analysis of classic IT governance models and calls for a new model of IT governance

In this section, we provide an overview of IT governance before analyzing new challenges for classic IT governance and the rise of "anarchic" governance situations (Weill, 2004), which call for a renewed model of IT governance.

### 1.1. IT governance as an organizational framework for IT usage

#### *1.1.1. Defining IT governance*

Governance entails systematically determining, within a given scope, who makes each type of decision (decision rights), who provides input (input rights), and how people (or groups) will be held accountable for their role (accountability) (Clegg et al., 2002). Applied to the IT field, governance aims to specify "the framework for decision rights and accountabilities to encourage desirable behavior in the use of IT" (Weill, 2004, p. 3), such that it enables organizations support their strategies and institutionalize good practices. Significant research in the IS field deals with topics that are similar to or synonymous with IT governance, such as IT decision rights and loci of control (Brown and Grant, 2005), IS

management controls (Garrity, 1963), control of information services (Olson and Chervany, 1980), IS organizational structures (Von Simson, 1990), IT decision-making responsibilities (Boynton et al., 1992), location of IS responsibility (Brown and Magill, 1994), and IT alignment (Coltman et al., 2015). However, the specific term "IT governance" did not appear before the late 1990s, when Brown (1997) and Sambamurthy and Zmud (1999) started referring to an "IT governance framework." Among several definitions of IT governance, most assert that it implies specifying the decision rights and accountabilities for important IT decisions, with the objective of encouraging desirable behaviors and IT uses (Weill, 2004). As Weill (2004, p. 3) explains, "a desirable behavior is one that is consistent with the organization's mission, strategy, values, norms, and culture," so "Effective IT governance encourages and leverages the ingenuity of all enterprise personnel in using IT, while ensuring compliance with the enterprise's overall vision and principles. As a result, good IT governance can achieve a management paradox: simultaneously empowering and controlling." In turn, IT governance is integral to corporate governance (Van Grembergen, 2013), reflecting broader governance principles that detail how "to manage and use IT to achieve corporate performance goals" (Weill, 2004, p. 3). It also shares mechanisms with other governance processes, so it is possible to coordinate decision-making processes across the enterprise. Finally, IT governance helps companies "allocate IT decision rights and accountabilities so that individual IT decisions align with strategic objectives and overall business priorities" (Weill and Ross, 2005, p. 26).

The strategic importance of IT governance has led companies to assign the design and orchestration of IT governance mechanisms to senior managers, who define enterprise performance objectives and actively design governance that encourages IT usages and behaviors consistent with those objectives (Weill and Ross, 2005). The organization and its management thus design and implement three main forms of IT governance mechanisms: decision-making structures (e.g., organizational committees, steering committees), alignment processes (e.g., centralized approval, IT investment proposals and budgets, architecture, service-level agreements, chargebacks, project tracking), and formal communications (official announcements, formal committees, portals). These mechanisms clarify the key processes and accountabilities so that organizational actors can make decisions, engage in desirable IT behaviors, and produce enterprise-wide synergies (see Table 1).

### *1.1.2. Classification of IT governance models*

Substantial research deals with IT governance forms, distinguishing centralized and decentralized models (Sambamurthy and Zmud, 1999) or predicting a continuum and scalar classification (Olson and Chervany, 1980) that allows for multiple degrees of centralization in structures (Brown and Grant, 2005). Such "enterprise/local tensions are a recurrent theme of the IT governance research" (Huang et al., 2010, p. 289). Studying the IT governance of more than 250 companies in 23 countries, Weill and Ross (2004) identify an array of IT governance arrangements along the continuum and propose that companies allocate decision rights related to five main IT topics (IT investment, architecture, principles, application needs, and infrastructure) to six main archetypes (Weill, 2004; Weill and Ross, 2005): Business or IT Monarchy, Federal, Duopoly, Feudal, or Anarchy. Each archetype is characterized by a specific allocation of decision or inputs rights, to corporate, business unit, or functional managers (or some combination), including corporate-level executives (C-level executives), corporate or business unit (BU) IT managers, and BU leaders or process owners (PO). Furthermore, as Table 1 shows, these archetypes correspond to various decision-making structures, which may enable considerations of enterprise-wide synergies (Weill and Ross, 2005). For example, Monarchy (Business and IT), Federal, and Duopoly archetypes demand decision-making structures that provide the representation and authority to produce enterprise-wide synergies (Weill, 2004; Weill and Ross, 2005), but the Feudal archetype relies on local decision-making structures, and Anarchies require no decision-making

structures. These archetypes also can be classified, according to their degree of centralization versus decentralization, into three primary modes of IT governance: centralized, hybrid, or decentralized (Sambamurthy and Zmud, 1999).

First, centralized models encompass two main archetypes in which the decision-making structure is centralized, though the interpretations of the centralized unit differ (Brown and Grant, 2005). In a *Business Monarchy*, senior corporate executives (sometimes including the CIO) make IT decisions. In an *IT Monarchy*, these decisions come from IT executives and corporate IT professionals. The centralization of all decision-making authority produces a top-down, enterprise-wide perspective, favoring organizational stability and organization-wide IT investment decisions, processes, and synergies. Such models also impose strong standardization of business processes, IT, norms, and values based on discipline and control.

Second, two archetypes represent hybrid models. The *Federal* archetype has a long tradition in government studies, where it is also referred to as distributed governance, hybrid governance, centralized-decentralized models, or equilibrium models (Zmud et al., 1986). The hybrid decision-making process implies that a centralized IS group provides core IT services, but BUs still control some of the overall IT function. Similar to a central government and states working together, this model coordinates decisions and balances the responsibilities and accountabilities of multiple governing bodies. An *IT Duopoly* implies a two-party arrangement, such that decision making involves a business partner and a technical partner. This hybrid archetype seeks to leverage the advantages of both centralized and decentralized models and address the tensions between enterprise-wide and local control. It collaboratively links participants who adopt enterprise-wide perspectives with participants who hold local perspectives, and it fosters the sharing and reuse of process, system, IT, and data modules. According to Weill (2004), both centralized models (Business and IT Monarchies) and hybrid models (especially the Federal archetype) are classic IT governance forms, widely used by organizations and studied in IS research.

Third, decentralized models are less widely studied, but two main archetypes represent this end of the spectrum, namely, Feudal and Anarchy. Decentralized models provide bottom-up, local perspectives, focused on innovation and flexibility, and they minimize constraints on creativity or autonomy for BUs or even individuals. In this sense, they impose few governance mechanisms and lead to little enterprise-wide technology or business process standardization. The *Feudal model* is based on the "traditions of 'merrie olde' England where each prince or princess and their designated knights made their own decisions to optimize their local needs" (Weill, 2004, p.6). Applied to IT governance, it implies that BU or PO leaders make separate decisions based on the needs of their autonomous units, without consideration of enterprise-wide synergies. The Feudal model thus presents similarities to the Federal model, but it is more specialized and decentralized. Although a decentralized archetype, this model still relies on BU owners, operational-level managers, or local IT representatives as primary decision makers, so some representation of organizational or business unit norms and objectives remains. *Anarchy*, the most extreme archetype, implies that each individual user or small group of users makes its own decisions, based only on its own needs, and pursues its own IT agenda (Weill and Ross, 2005). This model is completely decentralized (Weill, 2004). Anarchic models of IT governance are absent from previous research (Brown and Grant, 2005), though their existence has been recognized (Weill, 2004; Weill and Ross, 2004, 2005). Furthermore, very few enterprises govern IT using decentralized models (Brown and Grant, 2005). As recognized by Weill and Ross (2004, p.7), "anarchies are rarely used, or at least rarely admitted to!"

| GOVERNANCE MODE | CHARACTERISTICS | ARCHETYPE | RIGHTS HOLDERS | | | DECISION-MAKING STRUCTURES |
|---|---|---|---|---|---|---|
| | | | *C-level* | *Corp. or BU IT* | *BU Leaders/PO* | |
| **Centralized** | **Decision-making structures:**<br>Centralization of all decision-making authority, direction, and coordination<br>Enterprise perspective frames IT<br>Executive committees for decision making<br>**Alignment processes:**<br>Centralized processes for architecture compliance and exceptions<br>Enterprise-wide IT investment decision processes<br>High degree of standardization (both business processes and IT)<br>Organization-wide IT norms and values<br>Organizational stability due to demanding, disciplined processes<br>Control over IT standards<br>**Formal communications:**<br>Centralization of formal committees and announcements<br>Formal post-implementation assessments of IT-related projects<br>Top-down, enterprise-wide perspective<br>Formalized institutionalization of policies, guidelines, and procedures | **BUSINESS MONARCHY** | **x** | | | **Decision-making structures with the representation and authority to produce enterprise-wide synergies** |
| | | **IT MONARCHY** | | **x** | | |
| **Hybrid** | **Decision-making structures:**<br>Shared services to achieve customer responsiveness and economies of scale<br>Governance mechanisms addressing tensions between enterprise-wide and local control<br>IT leadership teams comprising business unit IT representatives<br>**Alignment processes:**<br>Sharing and reuse of processes, system, IT, and data modules<br>Process teams with IT members<br>**Formal communications:**<br>Coordinated communication between business unit IT representatives<br>Collaborative engagement of participants with both enterprise-wide and local views | **FEDERAL** | **x** | **x** | **x** | |
| | | **IT DUOPOLY** | **x** | **x** | **x** | |
| **Decentralized** | **Decision-making structures:**<br>Decentralized decision-making authority (individual BUs or processes)<br>Few governance mechanisms<br>**Alignment processes:**<br>Few enterprise-wide technology and business process standards<br>Investment process prioritizes strategic projects and risk management<br>Focus on innovation and time to market<br>**Formal communications:**<br>Bottom-up, local perspective<br>Flexibility<br>Local accountability<br>Minimization of constraints on creativity and business units autonomy<br>Customized solutions for each business unit | **FEUDAL** | | | **x** | **Local decision-making structures** |
| | | **ANARCHY** | | | | **No decision making structure** |

Table 1: Synthesis of IT governance models

## 1.2. New challenges for classic IT governance models

The changing technological landscape is however challenging established IT governance models.

### *1.2.1. Reversed adoption logics and the rise of anarchic situations*

The rapid democratization of smartphones, tablets, and notepad computers, coupled with the explosion of broadband Internet access, worldwide mobile phone networks, and wireless Internet access, as well as the massive development of social networks and appealing application platforms (e.g., Yammer, Dropbox, Twitter, Google Docs), have combined to reverse classical IT adoption logics in organizations (Baskerville, 2011a, 2011b; Crowston et al., 2010; Leclercq-Vandelannoitte, 2015a, 2015b). The parallel, contemporary rise of the "software as a service" (SaaS) model (Bhattacherjee and Park, 2014) has extended users' autonomy even further. Employees thus are technology-savvy, connected to sophisticated devices, and willing to use their personal technologies in professional spheres (Laga et al., 2012; Ortbach et al., 2013; Schmitz et al., 2016). This IT consumerization also implies an individualization of IS (Baskerville, 2011b), in the sense that individualized setups featuring different combinations of privately owned and company-provided IT devices are increasingly common (Ortbach et al., 2013).

These developments in turn might lead to the emergence and development of "anarchic" situations in companies (Harris et al., 2011). In its etymology, "anarchy" designates a situation without a government, without principles and rules, and without a leader.[2] In IS literature, anarchy thus implies a failure to address new IT challenges (such as IT consumerization) and an intolerable governance archetype, leading Weill (2004, p. 7) to explain: "Anarchies are the bane of many IT organizations because they go their own way, and they are expensive to support and make secure. Formally sanctioned anarchies were rare in our study. But they did exist, and were supported, where local or individual customers required very rapid IT responsiveness."

In more recent practitioner-oriented studies that note the changing technological landscape, anarchic situations are explored as deliberate strategies, based on freedom of choice, that might promote entrepreneurship and foster a culture of innovation. However, Harris et al. (2011, p. 5) caution that "these advantages come at the expense of concerns about data security as well as technology standardization and compatibility. Some organizations are not willing to take on these issues. Others, owing to regulations, cannot accept them." That is, such usages might compromise the integrity of the organization's system and enterprise data. A key problem here is that "Without formal IT governance, individual managers are left to resolve isolated issues as they arise, and those individual actions can often be at odds with each other" (Weill and Ross, 2005, p. 26) and lead to anarchy.

### *1.2.2. Classic governance in jeopardy: the need of a renewed model of IT governance*

Anarchic situations seem contrary to the basic principles of IT governance, which include consistency, desirable behaviors, control of uses, and alignment of IT uses with organizational objectives and interests. The very definition of IT governance states that it "demands that senior managers define enterprise performance objectives and actively design governance to facilitate desirable behaviors consistent with those objectives" (Weill and Ross, 2004, p. 13). Thus, the ultimate goal of IT governance seems virtually unattainable, according to several pertinent definitions, such as "to direct and oversee an organization's IT-related decisions and actions such that desired behaviors and outcomes are

[2] See http://www.etymonline.com/index.php?allowed_in_frame=0&search=anarchy: Anarchy (n.): from French *anarchie* or directly from Medieval Latin *anarchia*, from Greek *anarkhia* "lack of a leader, the state of people without a government."

realized" (Huang et al., 2010, p.289). In their definitions of IT governance, Boynton et al. (1992) cite the "location, distribution and pattern of managerial responsibilities and control that ultimately affect how IT resources are applied and then implemented," and Van Grembergen (2013, p. 4394) considers "the organizational capacity exercised by the Board, executive management, and IT management to control the formulation and implementation of IT strategy and in this way ensure the fusion of business and IT." That is, management first decides which IT to use and how to implement them, then controls behaviors to ensure the IT uses and performances align with corporate goals.

But evolutions in the technological landscape mean that management lacks visibility or control over the formulation and implementation of IT strategies. Corporate management and CIOs are not the only ones to introduce new IT in organizations, so they cannot ensure that business goals align with IT uses. The new IT uses (led by technological consumerization and SaaS) generally are more disordered and uncoordinated, suggesting that the anarchic model, rather than remaining secondary, is becoming a more common archetype, whether CIOs like it or not (Harris et al., 2011).

The new IT usages also raise the risk of a loss of power and control over IT mastery—that is, the "sovereign territory" of CIOs and corporate management. Classic IT governance models appear jeopardized by individual initiatives and decisions to adopt and use IT; these usages in the organization even imply escapes from classic IT governance mechanisms and frameworks. Thus they raise questions about how IT can be governed in an "anarchic" context and suggest the need for a renewed model of IT governance. What model of IT governance is appropriate in a digital era characterized a deep evolutions of technology uses and social behaviors? To address this question, we adopt a Foucauldian governmentality lens.

## 2. A Foucauldian framework of governmentality

By reflecting on the way the conduct of individuals or groups might be directed, Foucauldian governmentality provides insights for grasping the evolution of IT governance. Foucault's analysis of modes of government that aim to produce given behaviors and that rely on the exercise of power through a multi-scale network of relations, mediated by dedicated techniques and mechanisms, is indeed particularly insightful for questions of IT governance in companies. In this section, we present the evolving modes of governmentality identified by Foucault, which translate into a renewed vision of the exercise of power.

### 2.1. Three evolving modes of government

The Foucauldian concept of governmentality (Foucault, 2007), or "the art of government" designates the study of government, and more precisely the study of ways to govern. This neologism was forged by reference to rationality; it seeks to unveil the rationalities that underlie various ways to govern people. Governing refers to the art of "conducting the conducts" to structure possible fields of action by others. Foucault describes government as attempts to produce the behaviors who are best suited to fulfill its own policies and develop organized practices to govern those subjects (e.g., mentalities, rationalities, techniques). Thus Foucault conceptualizes the historical emergence, over the course of the Western history, of three types of governments that rely on different forms of the exercise of power: sovereignty, *raison d'Etat*, and liberalism (though the three forms often are mixed in reality). *Sovereignty* implies "a concern with the glory of the prince and the defense of his territorial possessions". This model is "born in a feudal type of territoriality and broadly corresponding to a society of customary and written law, with a whole interplay of commitments and litigations". R*aison d'Etat* (translated literally as "reason of the state") seeks to reinforce the state, especially as it relates to the European balance of powers during

the 16th to 19th centuries. This administrative state "corresponds to a society of regulations and discipline". Liberalism is dedicated to the protection and promotion of the life of populations (Merlingen, 2011) and corresponds to "a society controlled by apparatuses of security".

The concept of governmentality thus was originally developed by Foucault to analyze the transition from ancient, classic modes to more liberal forms of government and thereby to specify the nature, mechanisms, and implications of the latter. We present these three modes of government through a systematic analysis of their main dimensions, as are synthetized in Table 2.

#### 2.1.1. From sovereignty to *raison d'Etat*

Power was exercised during the Middle Ages and Renaissance mainly by princes who reigned over their goods and properties (i.e., land with people), with the possessions sustained by the laws decreed and enacted by those princes themselves (sovereignty). Machiavelli offers an archetype of this system, in which the fate of the land is inextricable from the fate of the prince (e.g. in *The Prince*, 1532).

Through an in-depth analysis of philosophers' works (e.g. Palazzo, 1604; Bacon, 1625; and Chemnitz, 1647, quoted in Foucault, 2007) and the evolution of their models of thought and the political order (e.g., treaty of Westphalia, 1648), Foucault (2007 p. 258) perceives the emergence of a new model of governmentality in the late 16th and early 17th centuries that shifts away from the sovereignty model with some very clear characteristics. *Raison d'Etat* thus has specific foundations: Viewed from an external perspective (e.g., toward other countries at the European level), it implies a better balance of power among states, by limiting state powers. But it also is exercised to achieve unlimited power within its own territory and over its own population (e.g., the police state), using the disciplinary mechanisms that Foucault (1977) studied extensively.

> Raison d'Etat presents some very clear characteristics. There is no reference to a natural order, an order of the world, fundamental laws of nature…. *Raison d'Etat* is not in any way a principle of the state's transformation, or even of its development I would say. Certainly you find the word "increase" … but this is basically only the increase, the perfecting of the features and characteristics that already actually constitute the state and is in no way its transformation. *Raison d'Etat* is therefore conservative…. there is no prior, external purpose, or even a purpose subsequent to the state itself … The end of *raison d'Etat* is the state itself, and if there is something like perfection, happiness, or felicity, it will only be the perfection, happiness, or felicity of the state itself. (Foucault 2007 p. 258)

In particular, discipline gets exercised on a clearly circumscribed territory, marked by quartering, hierarchical and functional distributions, and specific allocations of people to spaces. The organization of the space thus contributes directly to the development of discipline, as in the classic metaphor of the Panopticon, a prison design used to govern people and discipline and correct abnormal behaviors (Foucault, 1977). Therefore, "The first action of discipline is in fact to circumscribe a space in which its power and the mechanisms of its power will function fully and without limit" (Foucault, 2007 p. 45). Discipline favors extensive, detailed control, exerted on some ramification of social institutions and a multiplicity of organisms and bodies, including the smallest details of human life. It implies close scrutiny and surveillance of every aspect of individual activity, controlled through the construction of a "micropower," which Foucault (2007, p. 46) explains as follows: "Discipline allows nothing to escape. Not only does it not allow things to run their course, its principle is that things, the smallest things, must not be abandoned to themselves.… A good discipline tells you what you must do at every moment."

Compared with the sovereignty model, designed to produce strict domination, the main goal of *raison d'Etat* thus is to produce obedience. The model accordingly relies on specific techniques, such as normativity (produced by disciplinary practices). Foucault identifies norms established by the state that condition behaviors (e.g., prescriptive norms constructed on the basis of analyses of the best ways to link and connect sub-elements to achieve predefined goals). As such, "normalizing judgments" and "dressage" can govern people, by disciplining their behaviors, classifying them, and identifying abnormal behaviors, which together lead to obedience with predefined rules (Jackson and Carter, 1998) and the eradication of abnormal behaviors. Here, Foucault (2007 p. 57) explains,

> Discipline, of course, analyzes and breaks down; it breaks down individuals, places, time, movement, actions, and operations. It breaks them into components such they can be seen, on the one hand, and modified on the other. It is the famous disciplinary, analytical-practical grid that tries to establish the minimal elements of perception and the elements sufficient for modification. Second, discipline classifies the components thus identified according to definite objectives. What are the best actions [or individuals, places, etc.] for achieving a particular result?… Third, discipline establishes optimal sequences or co-ordinations: How can actions be linked together?… Fourth, discipline fixes the process of progressive training (*dressage*) and permanent control.… Disciplinary normalization consists first of all in positioning a model, an optimal model that is constructed in terms of a certain result, and the operation of disciplinary normalization consists in trying to get people, movements, and actions to conform to this model.

#### 2.1.2. From *raison d'Etat* to liberalism

The third model emerged in the 18th century, characterized by new foundations and distinctive mechanisms to exercise power (Foucault, 2007), namely, "security apparatuses" (*dispositif*) or "regulatory controls". These new mechanisms of liberalism are separate from notions of discipline, in the sense that they no longer seek total control over people and things. Security apparatuses attempt to stick to and observe reality, deduce some realistic goals, and then leverage the reality to make the goals happens. The first step is thus to study sub-elements (individual, places, time, movement, actions, operations), not to break them down and reassemble them but rather to understand their natural rules, motivations, necessities, and reasons. In Foucault's (2007, p. 40) words: "The analysis must be broadened on the side of protagonists, inasmuch as instead of subjecting them to obligatory rules, we will try to identify, understand, and know how and why they act, what calculation they make."

Security apparatuses also aim to establish, fabricate, and organize favorable milieu in which individuals and groups with varied interests can produce and react to events. In such milieu, sub-elements can move freely according to their own motives (enabling *laissez-faire, passer et aller*). The sum of these actions fulfill the global aim of government. In this new type of governmentality, the norm is no longer prescriptive, such as exists with discipline. Nor does the government define the norm. Rather, its role is to study the conditions in which particular behaviors occur, then promote such conditions to harness the favorable milieu that statistically induce the best behavior. Foucault (2007, p. 72) explains: "You can see that a completely different technique is emerging that is not getting subjects to obey the sovereign's will, but having a hold on things that seems far from the population, but which, through calculation, analysis and reflection, one knows can really have an effect on it."

In contrast to the discipline that characterizes *raison d'Etat*, the source of action by the population is desire and pursuit of individual interests. The milieu the government lays out should be such that the interaction of individual interests, through various relationships and connections, produces what is in

the general interest of the population. The interface of rulers and the populace no longer involves obedience but rather is marked by freedom. According to Foucault (2007, p. 49),

> Freedom is nothing else but the correlative of the deployment of apparatuses of security. An apparatus of security … cannot operate well except on condition that is given freedom, in the sense the word acquires in the 18th century:… the possibility of movement, change of place, and processes of circulation of both people and things."

As a result, this "new art of government," based on the free play of interests within a milieu structured by clear, well-known, long-lasting rules of the game, constitutes the essence of liberalism, and "The game of liberalism—not interfering, allowing free movement, letting things follow their course; '*laisser faire, passer et aller'*—basically and fundamentally means acting so that reality develops, goes its own way, and follows its own course according to the law, principles and mechanisms of reality itself" (Foucault, 2007, p. 48).

Liberalism thus introduces a new governmental rationality that governs people's conduct through their interests and calculations, rather than directly conducting them, so Foucault (2008 p. 312) offers a definition: "What characterizes liberal rationality: how to model government, the art of government, how to found the principle of rationalization of the art of government on the rational behavior of those who are governed." The main question for the state is not how to govern more (i.e., regulate all conducts through disciplinary procedures) but rather how to govern less (i.e., account for the costs of regulation relative to its gains for society). The ultimate goal is to find an optimal illegality rate and thus reach goals while taking the costs of enforcement versus the cost of nonconformity into consideration.

Contrary to the *raison d'Etat* model, differences in conduct and unplanned behaviors are not an issue that need to be corrected by appropriate training or dressage, because "Society does not have a limitless need for compliance. Society does not need to conform to an exhaustive disciplinary system. A society finds that it has a certain level of illegality and it would find it very difficult to have this rate indefinitely reduced" (Foucault, 2008, p. 256). Compared with sovereignty and *raison d'Etat*, which rely, respectively, on laws and rules as central techniques to achieve domination and obedience, liberalism uses regulation to act indirectly on the population by favoring a milieu that is prone to free movement.

The resulting type of government has been implemented in advanced liberal democracies, in which power is decentered. It does not imply a transfer of power from the state to non-state actors but rather an expression of a changing logic of rationality of government (defined as a type of power), in which civil society is redefined: from a passive object of government to be acted upon to an entity that is both an object and a subject of government.

This renewed vision of power further implies that individuals are active in their own self-government. The recognition of the active role of individuals implies the need for internal regulation, such that people must be willingly complicit in their own governance and thus become governable from a distance. Contemporary liberal governmentality settles on an understanding that society is best governed at a distance through networks (Clegg, 2002), according to regulations of conducts rather than ruling through top-down laws or decrees. Liberal governmentality in turn offers indirect techniques for leading and controlling individuals without being responsible for them, such as through technologies of responsibilization. In this case, subjects are held responsible; they are encouraged to see social risks as outside the responsibility of the state, such that they lie in the domain for which an individual is responsible, transforming it into a problem of self-care (Foucault, 2007, 2008).

Table 2 synthetizes the main dimensions of these three modes of government.

| | | SOVEREIGNTY | RAISON D'ETAT | LIBERALISM |
|---|---|---|---|---|
| **Foundations** | *Underlying principle* | Legality | Discipline | Security apparatuses ("dispositifs") or regulatory controls |
| | *Nature of space* | Territory (potentially without limitation) dominated by prince (from the capitol) | Circumscribed territory, ramified, and characterized by quartering, hierarchical and functional distributions, and specific allocation of people to spaces | Favorable milieu, an area of free movements, arranged according to possible events, to enable *laissez-faire, passer et aller* |
| | *Target of power* | Ensemble of subjects of law | Multiplicity of organisms and bodies, on which extensive, detailed control is exerted | Populations of individuals and groups who produce and react to events (with various interests) |
| **Objectives** | *Educational stake* | To produce domination | To produce obedience (normalize, discipline, classify, and correct abnormal behaviors) | To produce freedom (empowerment) |
| | *Ultimate objective* | To ensure the prosperity of the sovereign | To eradicate abnormal behaviors | To find an optimal illegality rate depending on costs of enforcement and non-conformities |
| **Techniques** | *Main mechanism* | Law (authorize or ban) | Rules and prescriptions (for obedience) | Regulation (to influence the milieu in which the population moves freely) |
| | *Interface of individual conduct* | Will (allegiance, adhesion or coercion) | Obedience (duty) | Freedom (desire) |
| | *Conception of norm* | Distinction between legality and illegality (definition of what is forbidden and what is not) | A prescriptive norm is pre-established by the state to distinguish normal from abnormal | A norm emerges from a statistical analysis of types of conduct and their effects, so actions can be taken to correct deviations and induce best behaviors |

Table 2: Synthesis of the main dimensions of the three models of government

## 2.2. A renewed concept of power at the heart of governmentality

Modes of government thus primarily correspond to different means to exercise power. That is, governmentality does not pertain to theorizing about conceptual entities (e.g., the State) but rather to studying "the rationality immanent to the micro-powers, whatever the level of analysis being considered" (Foucault, 2007, p. 389). Miller and Rose's (2008) analysis of "mentalities of government" and Dean's (2010) "analytics of government" affirm that "how power is exercised" represents a more efficient question than "who governs." As Foucault explains, "governmentalization" is a process by which power relations get intertwined in the state and among the population (Nohr, 2012). Power is not only hierarchical and top-down, possessed by the state or institutions. In contrast with this classic vision of power (i.e., oppressive and localized in a sovereign ruler or state), Foucault proposes a dense net of omnipresent relations, coming from below, that spreads everywhere. Classic theories of power (Hobbes, 1651; Law, 1991) present it as an entity that can be possessed or claimed; Foucault instead conceives of power as relational and immanent. That is, he rejects a "unified view of the state for one of a network of institutions, practices, procedures and techniques in which power as strategic relations circulates"

(Willcocks, 2004, p. 257). As a result, power cannot be theorized but only can be exercised; it exists only in action and relationships (Foucault, 1977) – and one of the more fundamental way of exercising power is knowledge.

The shift from one mode of government to another is driven by deeper evolutions in power relations, or power–knowledge relations in Foucault's (1977) terms. Consistent with his conception of power as relational, Foucault posits a circular relationship between power and knowledge. Power is a "knowledge field," from which ratios of power emanate. Power produces knowledge; discourse and knowledge have power and truth effects, such that "Power and knowledge directly imply one another" (Foucault, 1977, p. 27). An analysis of power is thus inseparable from the regime of truth and the "*instances de véridiction*" (veridiction authorities) associated with it (Foucault, 1976, p.48-49). In early writings, Foucault rejected received interpretations about established knowledge, in his attempt to question regimes of truth. He explained how the production of official discourse was controlled, selected, classified, and distributed by various actors and social institutions, which he labeled "instances de véridiction" (e.g., clergy in the sovereignty model, the state in the *raison d'Etat* model). These entities tended to impose their own regimes of truth (e.g., based on wisdom in the sovereignty model or reason, as calculated by the ruler, in the *raison d'Etat* model). By analyzing relationships among truth, knowledge, and values, and the social institutions and practices in which they emerge (Willcocks, 2004, p. 247), Foucault highlighted the power effect characteristics of such discourses, diffused by social institutions and presented as regimes of truth. For example, madness, prisons, the body, life, death, and human beings progressively became objects of observation and new scientific discourses developed by social institutions,[3] thus producing insidious forms of social control. Discourses that aimed to reveal a truth created and controlled the objects they claimed to know; what we accept as normal, natural, and true in society in fact comes from historical contingencies and power–knowledge relations, which define possible actions and truths (Willcocks, 2004).

New "instances de véridiction" thus emerge from evolving power–knowledge relations that characterize the transition from one mode of government to another. In particular, the shift from *raison d'Etat* to a liberal mode of government was driven by the emergence of a specific field of knowledge that, despite its importance for the state's power, could not be governed by the state: economics. Economic processes could not be efficiently regulated by an almighty *raison d'Etat*; the state could not efficiently discipline the course of economies, because the state could not assess the truth about it. Economics thus emerged as a separate field, outside the state government, and developed its own regime of truth. The truth then could no longer be established by the state solely according to its own interests. Instead, the emerging regime of truth reflected the expressions of the interests of various individual actors involved in economic processes; rather than being objects of disciplinary practices by the state, they played active self-government roles, with the goal of maximizing their profits while minimizing losses. The simultaneous condition and effect of the shift from *raison d'Etat* to liberalism thus was the emergence of the market, as a new instance de véridiction. In *raison d'Etat*, the only instance de veridiction was the state, and the market was an object of jurisdiction (governed and constrained by disciplinary rules, such as minimal or maximal prices); the shift to liberalism was characterized and triggered by the evolution of the market from an object of jurisdiction to an instance de véridiction.

Table 3 synthetizes and compares the main conception of power in the sovereignty, *raison d'Etat*, and liberal modes of government.

[3] For example, as Foucault notes, psychiatry emerged during the 19th century as an instance of veridiction to assert a truth about who is a fool and who is not.

| | SOVEREIGNTY | RAISON D'ETAT | LIBERALISM |
|---|---|---|---|
| **Historical archetype *(never pure)*** | Feudal state | Administrative state | Market democracy |
| **Nature of power** | Power of the sovereign, (oppressive and localized in the sovereign ruler) | Power of the state (transcendent and unlimited) | Immanent to society (dynamic and permeating, limited by utility) |
| **Role of population** | Passive object of government to be acted on | Passive object of government to be acted on | Both an object and a subject of government |
| **Meaning of governing** | Reigning | Ruling or commanding | Regulating people's conducts and making them responsible |
| **Instances de véridiction (examples)** | Clergy | State | Market |
| **Regime of truth** | Wisdom | Reason, calculation of the ruler ('*calcul du gouvernant*') | Reason, calculation of the governed ('*calcul du gouverné*') |

Table 3: Synthesis of the main conceptions of power in three models of government

## 3. Foucauldian governmentality as a conceptual framework to revisit IT governance

Using this philosophical and historical analysis of Foucault's theory of governmentality as a conceptual lens, in this section we apply analogical reasoning to compare the evolutions of governmentality and IT governance and grasp the emergence of a liberal model of IT governance.

### 3.1. Analogy: IT governance models and Foucauldian governmentality

#### *3.1.1. Process of analogical reasoning*

The Foucauldian theory of governmentality provides a useful conceptual framework for understanding the functioning of diverse institutions, as demonstrated in research pertaining to politics, the state, law, and history. However, this concept rarely has been used in management (or IS) research (Clegg et al., 2002) to address questions linked to the government of organizations and governance principles. Although some research acknowledges concepts of reflexive control or self-surveillance (Barker, 1993; Sewell, 1998), we find no links to the concept of governmentality (Clegg et al., 2002). Nor has governmentality been used in prior IS research to study questions of IT governance, which is especially surprising when we consider that IS research has drawn on state governance and information politics to investigate these questions, as revealed in the political perspective and lexicon used by such studies (Davenport and Prusak, 1997; Weill, 2004). Foucault presents governmentality as an analytical framework for studying micro-power relations at various scales (from the self or family to the overall social structure) and in various fields (e.g., madness, illness, criminality, education). Although he never applied his concepts to the enterprise (focusing instead on prisons, hospitals, or factories), his theory of governmentality has a strong heuristic slant for organizational topics, and IS research in particular. We thus draw an analogy (Bartha, 2013) between models of IT governance and the Foucauldian framework of governmentality to understand IT governance in radically changed technological environments. Analogical reasoning can introduce new ideas and develop renewed theoretical perspectives, so analogies are essential for the generation of organizational knowledge, because they "liberate

imagination, help draw attention to alternative conceptions of reality by selectively highlighting certain features of it, and thus guide action accordingly" (Tsoukas, 1993, p.325). Analogical reasoning seems particularly insightful for management research, especially considering the calls for organization theory to encourage diverse perspectives, such as analogies and metaphors, and thereby develop further (Cornelissen et al., 2011; Tsoukas, 1993). Analogies also are useful for practitioners and managers, and organizational actors strongly rely on analogical reasoning "to comprehend change, including the meaning and potential of new technologies, systems and processes" (Bingham and Kahl, 2013).

Because analogical reasoning involves a comparison of similarities between two concepts, we use the Foucauldian framework of governmentality as a conceptual lens to interpret IT governance models, seeking to abstract and transfer knowledge about IT governance to the Foucauldian framework of governmentality and thereby revisit questions of IT governance, to understand its dynamic evolution and issues. Accordingly, in the first, open coding phase (Miles and Huberman, 1994), we undertook both a review of literature into IT governance (IS research and practitioner studies) and, in parallel, an extensive literature review of Foucauldian governmentality (Foucault's lectures at College de France). In the second phase, we compared codes assigned to the characteristics of each model, looking for connections and parallels (e.g., foundations, objectives, techniques) that would allow us to establish more abstract concepts and develop renewed concepts of IT governance.

### *3.1.2.IT governance models interpreted through a Foucauldian governmentality prism*

Our analogical reasoning enables us to suggest that IT strategies, implementations, and uses in organizations are situated in a given mode of government, characterized by specific dimensions and premised in specific regimes of truth. With a content analysis, we considered models of IT governance along specific dimensions and specified their foundations, objectives, and techniques, according to a Foucauldian view of governmentality. The models of IT governance thus can be situated in specific modes of government (Table 4), though we also acknowledge, as Foucault himself did, that there is no pure mode of government—only prevailing modes that combine several specific dimensions.

For example, Business Monarchy and IT Monarchy (the most centralized models) are inscribed in a *sovereignty* mode, in which IT is the sovereign territory of a centralized authority and decision-making structure, generally represented by corporate executives or CIOs. The main goal of this sovereign mode of IT governance is to constitute a dominant corporate position to fulfill top-down IT strategy and enterprise-wide goals, using techniques and laws that seek to institutionalize IT policies and procedures, generally by relying on coercive mechanisms. The Federal model, IT Duopoly, and, to a lesser extent, the Feudal model, instead are inscribed in a *raison d'Etat* mode of government, which is based on circumscribed territory, governed by ramifications among organizational representatives (e.g., corporate, BU, functional, or IT managers) that are hierarchically and functionally organized. This sort of IT governance relies on a hybrid, centralized–decentralized decision-making structure, with the objectives of normalizing processes that can standardize behaviors and IT uses. To do so, such models rely on diverse IT governance mechanisms as disciplining techniques (e.g., rules, urbanization of IS, enterprise architecture, IT architecture, organizational committees, alignment processes, formal communications). In turn, the Business Monarchy, IT Monarchy, Federal model, IT Duopoly, and Feudal model all can be considered classic models of IT governance: They are standard and long-established means, both in organizations and in IS research. These classic, extensively studied models correspond to a classic vision of power as something that can be possessed, and they vary in "the extent to which corporate executives, corporate IT, divisional IT or line managers are vested with power and authority for the key IT decisions and activities" (Sambamurthy and Zmud, 1999, p. 261). Depending on their degree of centralization, they also may vary in the extent to which they impose standardized

and normalized IT uses in organizational settings, through disciplining mechanisms that seek to produce either domination (sovereignty) or obedience (*raison d'Etat*).

The Anarchic model (Weill, 2004) extends autonomy and the associated logics of empowerment, while also announcing the emergence or invention of a renewed model of IT governance. Just as Foucault perceived shifts in the modes of government by observing behaviors and analyzing philosophy during particular periods, we note that the emergence of this renewed model of IT governance has been announced in recent decades, by both observed practices and IS theories. For example, the changes in IT uses and resurgence of autonomy have been conceptualized according to various perspectives (e.g., bricolage, Ciborra, 1994; adaptive structuration theory, DeSanctis and Poole, 1994; Schmitz et al., 2016; emergent and opportunity-based changes, Orlikowski and Hofman, 1997; creative autonomy and appropriation tactics, Certeau, 1980). Such approaches still assume that the introduction and deployment of a new IT system starts with organizational decisions, but they emphasize the autonomy and power that can be exerted by each organizational actor, which has been extended by recent technological trends such as the consumerization of IT, inversed adoption logics, the development of individual IS (Baskerville, 2011a, 2011b) and the development of SaaS that allow for uncoordinated IT uses (Harris et al., 2011; Niehaves et al., 2012).

Such uses also can be grasped through the Foucauldian renewed concept of power, which is not the property of any state or, in an IT governance context, corporate executives or CIOs. Nor is it localized in a central decision-making structure. Rather, power is exercised throughout the social body, is omnipresent at every level, and operates at micro levels of social relations through power–knowledge relations (Foucault, 1977). For example, IT departments have long been the only actors able to manage the engineering side of technology (e.g., installing and hosting servers, managing firewalls, implementing enterprise resource planning, configuring routers), and they exerted power stemming from this knowledge (Silva and Backhouse, 2003). But IT consumerization and the contemporary rise of SaaS implies that every need now has an online solution, so technical knowledge is less useful and already has been transferred, at least partially, to users. Employees, organizational actors, and IT users thus are not just recipients of and indirect participants in organizational, IT-driven change; they can initiate such change, through their choice to use their own technology for professional purposes (Harris et al., 2011; 2012), or to develop deviant, non-prescribed (Cunha, 2013), non-canonical practices, and non-conformities (in front of 'Raison d'Etat'). Such changes in IT uses thus contain the premises of a shift from classic modes ('Sovereignty' and 'Raison d'Etat') of IT governance to a renewed model, that we label a '*liberal model of IT governance*'.

The foundations of a *liberal model of IT governance* stem from the combination of both strategies of organizational and IT governance (in a broad sense) and self-governance by those who are made subjects of organizational governance (Clegg et al., 2002, p. 32). The Foucauldian concept of liberal government, coupled with this relational and networked form of power, help us understand this evolution according to the coordination of actors, beyond disciplinary normalization. That is, the liberal model of IT governance allows the personal projects, ambitions, and IT choices of individual actors to become enmeshed and form alliances with those of organization authorities (Merlingen, 2011). As mentioned by Du Gay (2000, p. 168), the goal of a liberal government is "to create a distance between the decisions of formal political institutions and other social actors … "conceive of these actors as subjects of responsibility, autonomy and choice [and] … act upon them through shaping and utilizing their freedom." A liberal model of IT governance thus would aim to regulate the behaviors and IT uses of organizational actors, who are subjects of responsibility, autonomy, and choice, and then benefit from their freedom. It also would rely on diverse regulation techniques, such as security apparatuses, that entail both empowerment and the development of individual and local accountabilities. Table 4 proposes

a way to map the results of this analogy between IT governance models and Foucauldian governmentality.

| IT Governance Archetypes | Main Dimensions (in a Foucauldian Lens) | Foucauldian Modes | |
|---|---|---|---|
| **BUSINESS MONARCHY IT MONARCHY** | *Foundations:* IT as the sovereign territory of corporate executives or CIOs (centralized authority and decision-making structure).<br>*Objectives:* Constitution of a dominant position to fulfill top-down IT strategy and enterprise-wide perspective.<br>*Techniques:* Strong institutionalization of IT policies and procedures through coercive mechanisms (authorization or ban). | **SOVEREIGNTY** | |
| **FEDERAL MODEL IT DUOPOLY FEUDAL MODEL** | *Foundations:* IT as a circumscribed territory, governed through ramifications among organizational representatives that are hierarchically and functionally organized (hybrid, centralized–decentralized decision-making structure).<br>*Objectives:* Normalization process aimed at standardizing behaviors and IT uses.<br>*Techniques:* IT governance mechanisms as discipline tools (rules, urbanization of IS, IT architecture, organizational committees, alignment processes, formal communications conceived of as discipline). | **RAISON D'ETAT** | **Classic models of IT governance** |
| **ANARCHY** | *Foundations:* IT self-governance (by subjects of organizational governance); personal projects, ambitions and IT choices of individual actors become enmeshed and form alliances with those of organization authorities.<br>*Objectives:* Regulation of behaviors and IT uses of organizational actors, as subjects of responsibility, autonomy, and choice; seeking to act on them by shaping and utilizing their freedom.<br>*Techniques:* Security apparatuses, empowerment, and development of individual/local accountabilities. | **LIBERALISM** | **Emerging model of IT governance** |

Table 4: Analogy between IT governance models and Foucauldian governmentality

### 3.2. Toward a liberal model of IT governance

Through inferences from the analogical reasoning, we also attempt to grasp the characteristics of a liberal model of IT governance. In particular, following Foucault's main governmentality concepts, we aim to present a renewed regime of truth and instances de véridiction associated with the emergence of a liberal model of IT governance. We then present some related inferences and analytic implications, in the form of propositions for further research.

#### *3.2.1.IT usage: from object of jurisdiction to instance de véridiction*

Each mode of government possesses a specific instance of veridiction, so the shift from one model to another necessarily implies the emergence of a new instance of veridiction that progressively delegitimizes the previous one. The use of IT in modern organizations is not only—and perhaps not even mainly—enforced by rules, procedures, or discipline (as in classic models of IT governance inscribed in sovereignty or *raison d'Etat* models) but rather is legitimized by a renewed regime of truth.

The observation of uses of IT in organizations, coupled with an analysis of emerging trends in IS research, leads us to consider the shift of IT usage from an object of jurisdiction to a new instance of véridiction. (Here, IT usage is the act in which a person makes use of an IT service or device. This act

is performative; it cannot be true or false but instead just is. Moreover, usage is necessarily situated within a given institutional and instituting framework.)

IT usage has long been viewed as an object of jurisdiction, to be disciplined, to be framed (through governance mechanisms), normalized, standardized, controlled, and constrained through rules and processes (Markus, 1983). Progressively, by studying the successes and failures of IT deployments, IS scholars increasingly have considered IT usage as a behavior that could escape such discipline, through resistance (Markus, 1983) or various levels of acceptance (Davis, 1989). The 1990s put stronger emphasis on users' autonomy in IT usages (Orlikowski, 1992, 2000), as shown by the emergence of counter-practices (Ciborra, 1994), various appropriation moves (DeSanctis and Poole, 1994), or non-prescribed and non-canonical IT practices at work (Cunha, 2013). In an extension of such logics, as technologies became more pervasive, transparent, and disintermediated, spontaneous usages by employees emerged, whether to improve their work processes or equip themselves with technologies that they consider relevant, thereby leading to so-called inversed adoption logics. In the same vein, scholars are now prompting for considering strategic IT alignment as resulting from choices made by individuals, rather than organization wide decisions (Coltman et al., 2015).

Such evolutions reveal a progressive, general trend in IS research, freeing IT usage from discipline, predefined rules, or constraints. These evolutions also reflect broader transformations at the societal, economic, and technological levels. Organizations and IT departments thus face aporia: IT usage is increasingly essential for work but increasingly difficult to control. As technology becomes pervasive, transparent, and disintermediated, it may be time to conceive of IT usage as not only a resisting object of jurisdiction to be disciplined but also as a renewed instance de véridiction that provides the main source of and driver for enterprise IT.

### *3.2.2.Inferences and analytic implications of a liberal model of IT governance*

Some inferences can be drawn from our analysis in order to better grasp the practical implications of a *liberal model of IT governance*.

First, the security apparatus relies on setting up a favorable milieu, in which flows can circulate. This "milieu" is bounded by a given materiality and a concrete environment, and it enables a loop between causes and effects, such that a cause within the milieu produces effects within the same milieu. Yet it is not a circumscribed territory but rather an evolving set of relationships of people, material artifacts, immaterial goods, and processes among them. Similarly, IT governance is no longer about "reigning" over IT in a given territory (i.e., the enterprise) but rather must be exercised on a given milieu that includes applications, people, and decision processes. That is, IT governance previously was used to consider IT decision-making rights, inputs rights, and accountability measures, but a Foucauldian governmentality approach suggests that a liberal model of IT governance has a wider scope, focused on establishing a favorable milieu that enables a loop between causes and effects. Therefore, IT governance should expand, both horizontally to the usage of IT and the value thus generated, and vertically to people and material artifacts (e.g., applications, devices) involved in these processes. It should take into consideration every IT use, such as the uses supported by IT departments and those that are part of the so-called "shadow IT" (Behrens, 2009; Rentrop and Zimmermann, 2012). The distinction between both should even be abolished, as all IT uses are considered in the same way within this milieu.

Second, the play of organizational actors within this milieu cannot be authoritatively constrained by discipline. Their behaviors first must be observed, to understand their causes and consequences, as well as to determine the source of actions. Applied to IT governance, we assume that drivers of action in this milieu include efficiency and the desire to be more efficient (Hatchuel, 2005), as expressed by various

categories of organizational actors (decision-makers, IT users, IT applications and devices). A liberal model of IT governance thus aims to build a framework that can influence conduct within this milieu, relying on the fundamental action driver constituted by efficiency, which in turn represents a shift in mindset compared with a classic, disciplinary IT governance framework.

Third, IT usage should meet four specific conditions to be enacted as an *instance de véridiction* in the liberal model of IT governance.

1. *Efficient usage*: IT should be used by organizational actors to fulfill business tasks in an efficient way. Efficient usage refers to both the potential added value of using specific IT applications or devices and to users' ability to produce such added value effectively. As past IS research on bricolage has shown, users assemble various tools to reach their own business goals, and the attitude of workers toward technology often implies a choice of the right tool to get the job done (Harris et al., 2012). Efficiency should here be understood as the perceived efficiency assessed by the individual employees or working teams, not as objectively measured by the company (as in the *reason d'Etat* models).
2. *Measured usage:* To play a véridiction role, IT usage should be strictly monitored and measured (similar to market transactions), on two simultaneous levels. The IT department can monitor the use of IT (in terms of both applications, to determine uses of internal applications, and networks, to trace domain names and visited websites to detect interactions with SaaS providers or new types of devices connecting to the enterprise network). In addition, the finance department can monitor deals performed by employees or BUs to buy SaaS or devices or trace payments to external IT providers. Combining these data then would enable the organization to gain a true view of IT usage, both internally and toward external SaaS sources (Harris et al., 2012).
3. *Individually accountable usage:* Organizational actors should be held accountable for their IT usages, assume consequences, and pay the potential costs of such usages. That is, they will be held responsible in cases of failure, security threats, or data losses.
4. *Freely chosen usage:* IT should not be constrained by any predetermined rule or policy. From a Foucauldian perspective, freedom is not a natural state. It is constructed, so that freedom must be produced by liberal governmentality. A liberal IT governance model constructs this freedom of use, so it trains actors not to use IT applications or devices but rather to exercise their own freedom of use and of choice to select applications (internal or SaaS) and devices (enterprise-owned or their own) that are most suitable and efficient for fulfilling their business tasks.

When these conditions are fulfilled, a liberal IT governance model can govern the less than possible, so interactive IT usages at the individual level are free to increase the efficiency of the whole company (just as the interaction of individual interests leads to the common good in liberal governmentality). A liberal model of IT governance suggests that each user or organizational entity is free to choose the most suitable tool(s) to accomplish their business goals, by balancing the intrinsic performance of the tool versus the costs of using it (which include not only financial but also usage and complexity costs). Each decision is an individual, situated trade-off (rather than a general directive), so the role of IT departments is no longer to constrain and discipline but instead is to let users or entities make the most efficient choice, by educating them about the stakes and consequences for themselves and the organization. The defining characteristics of this liberal model are summarized in Table 5.

| | Liberal Model | Application to IT Governance |
|---|---|---|
| **Space** | A favorable milieu | Relationships among applications, people, and decision processes |
| **Mainspring of action** | Interest | Efficiency |
| **Instance de véridiction** | Market | IT usage |
| **Value** | Financial value | Utility of IT |
| **Cost** | Price | Difficulties in using IT (price, learning time, usability |
| **Role of government** | Structure the freedom, organize fair competition | Educate about free usage (integrate the hidden or long-term costs) |

Table 5: Synthesis of the main defining characteristics of the liberal model of IT governance

## 4. Conclusion

We conclude with discussions of the theoretical and practical contributions of this conceptualization of a liberal model of IT governance. From a theoretical perspective, this theory article, based on Foucault's philosophy of governmentality, revisits the question of IT governance—long a crucial topic for IS researchers (Brown and Grant, 2005). By exploring an alternative to current ways of thinking about IT governance, this approach reveals the deep connections across philosophy, political science, IS, and society as a whole (Mingers and Willcocks, 2004). Using Foucault's concepts, we conceptualize the liberal model of IT governance, whose implications take place at a broad societal level. As recognized by Foucault, a given mode of government is not a narrow phenomenon but instead takes place at, and has impacts on, a broader societal level. The emergence of this liberal model of IT governance must be understood in the broader context, characterized by the evolution of Western societies and economies, the impacts on workplaces, the decline of bureaucratic organizations, the empowerment of individual initiatives and autonomy, revised employee–employer links, and the notion of efficiency promoted as a cardinal virtue in post-modern "episteme" (Foucault, 1966), among other forces.

These evolutions take place in a context characterized by technological and social shifts, including changes in the way people deal with technology as a natural, innate, and intuitive tool, supported by the inherent characteristics of IT. The pervasiveness of IT in every dimension of human life gives sense to its booming consumerization at work; the intuitiveness and transparency of these technologies explain the decreasing need to train people in IT (Eagle, 2011). Instead, employees can focus on their tasks and express intent, rather than dealing with challenging modes of interactions with machines to accomplish their goals. Technology's accessibility and potential for disintermediation also has shrunk the power of the IT department, previously derived from mastery and knowledge of a specialized field that appeared unfamiliar to users (Knights and Murray, 1994). The emergence of a liberal model of IT governance must be understood in this broader context as well, even though it is rarely conceptualized in existing IS research.

This study has several practical implications. Our findings highlight the need to develop a renewed IT governance framework, relying on empowerment, attraction and incentives rather than on coercion. Defining and enacting this renewed framework should not only involve IT departments, but corporate-level executives as well. IT use should play a key role in such a framework: regulations and training should favor efficient, measured, accountable and freely chosen uses of IT, and promote individual

tradeoffs between external or internal devices. In this regard, IT departments could position themselves as IT service providers, aiming to propose services at a better 'cost' (in terms of better security, backup management, or interaction with other enterprise services) than external SaaS. They could also evolve to provide a marketplace of reliable external services. The very notion of shadow IT would be largely weakened, as all IT uses would be considered in a similar way. Any IT use would be viewed as legitimate as long as they meet the four abovementioned conditions.

From a practical perspective, it would also be interesting to analyze users' reactions to such empowerment logics, as well as their ability and readiness to accept these new responsibilities and potential consequences. This model might indeed lead to some controversies related to the user's role. Similarly, it would be particularly interesting to investigate the IT department and CIOs' reactions to such empowerment logics, notably their ability to authorize such free use, in a context where many companies still rely on rules, use policies, IT charters. Resistance might indeed appear both at the level of users and the level of IT departments. In contrast, such a governance framework might also be an opportunity for IT departments to rethink their role, towards an educational mission, where they could find a new form of self-fulfillment.

Our main contribution is to provide a conceptual framework, grounded in the Foucauldian theory of governmentality, for grasping evolutions in IS research (Mingers and Willcocks, 2004), while also helping practitioners manage this shift in their organizations. Because "Effective IT governance does not happen by accident" (Weill and Ross, 2005, p. 26), in highly dynamic times, it is crucial for corporate executives, CIOs, and managers to understand the issues at stake, new IT adoption logics, and the implications for IT departments and the organization as a whole. This study also has some limitations; we present the results of a theoretical analogical reasoning process. Thus, the findings need to be operationalized and validated empirically. Accordingly, our propositions provide several potential bases for additional research and raises some questions:

- To what extent does this model make sense in existing organizational settings?
- How can this model be applied empirically (i.e. in which context, with which types of IS/IT uses, nature of organizations, and types of activities)?
- What are the companies that are ready to give up their disciplinary framework (made of rules, IT charters and policies) in order to favor free uses? In that regard, it would be interesting, empirically, to compare various organizational contexts (e.g. small companies, where IT uses might be more informal and less codified, vs. large enterprises, generally characterized by the development of procedures and strict rules governing IT uses). It would also be insightful to investigate the impact of organizational culture (e.g. "data-driven" culture) on the development of this new governance framework.
- How can we operationalize this framework and its main dimensions, which are inspired by the complex thought of Michel Foucault?

While we are not able yet to answer these open questions, we hope that this paper provides a first step in enhancing our understanding of the "management of digital transformation", as suggested by the general theme of the AIM 2019 conference, which might be an opportunity to communicate on this model and discuss it further with IS scholars and practitioners.

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