



Fields, Institutional Infrastructure and Governance

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INTRODUCTION

In their seminal article, Greenwood, Raynard, Kodeih, Micelotta and Lounsbury (2011) introduce the idea of institutional infrastructure while discussing institutional complexity. They drew attention to institutional infrastructure as the features that bind a field together and govern field interactions. They also suggested that the lack of a developed conceptual framework for comparing fields could be dealt with, at least partially, by an analysis of institutional infrastructure. One of our aims in this chapter is to draw together these two ideas of institutional infrastructure and field comparison to review whether and how the former differs across fields.

We argue that a field's institutional infrastructure can be usefully delineated for the purpose of better understanding different states or conditions of fields and how they affect processes of field maintenance and change. However, there is relatively little work on institutional infrastructure. As such,

we will first explore the definitions of organizational fields, as the bounded area within which infrastructure exists as a way of elaborating that concept beyond the descriptors used by Greenwood et al. (2011). Following on from that we explore the use of the concept institutional infrastructure across several scholarly fields, and develop our definition and elaborate the field elements involved. We argue that clarifying differences in field infrastructure would allow us to develop a better understanding of organizational field dynamics, enabling field comparisons and improved theorizing.

The idea of institutional infrastructure is related to that of governance of organizational fields. In developing our arguments, we consider governance as the formal mechanisms that maintain the 'rules of the game' within a field. Institutional infrastructure thus includes field governance arrangements, but also other cultural, structural and relational elements that generate the normative, cognitive and regulative forces that reinforce field

governance, and render field logics material and field governance performable. However, as with institutional infrastructure, there is very little written on the governance of organizational fields *per se*. As Kraatz and Block (2008) point out, there has been work on the role of the state, professions and field-level actors in general, that examine influence and control. But this has not been developed as *governance*, yet we know that questions of control are central to understanding fields. So we explore how the concept has been used, develop a definition and examine the relationship between institutional infrastructure and governance.

To examine these relationships more closely, we analyze three different fields (professional services, forestry and impact investing) describing their institutional infrastructure, its degree of elaboration and associated governance mechanisms. From the comparison of the infrastructure of those fields, we then describe different configurations and states of institutional infrastructure and discuss their implications for the maintenance and change of organizational fields and their associated governance. We close with a number of provocations for further study of institutional infrastructure, field governance and field-level institutional dynamics.

ORGANIZATIONAL FIELDS

The concept of an organizational field is one of the cornerstones of institutional theory (Wooten & Hoffman, 2008; Scott, 2014), an ‘increasingly useful level of analysis’ (Reay & Hinings, 2005: 351), and the concept that is ‘vitaly connected to the agenda of understanding institutional processes and organizations’ (Scott, 2014: 219; Wooten and Hoffman, 2017; Hardy and Maguire, 2017; Kraatz and Block, 2017). Yet, definitions of organizational fields vary in their scope and emphasis, and we have no clear classification of different types or conditions of

fields (Greenwood et al., 2011; Zietsma, Groenewegen, Logue, & Hinings, 2017). Various studies have described fields as being in different states or conditions, such as emerging (Maguire, Hardy, & Lawrence, 2004), mature (Greenwood, Suddaby, & Hinings, 2002; Greenwood & Suddaby, 2006), fragmented (Meyer, Scott, & Strang, 1987), or turbulent (Farjoun, 2002).

The terms ‘organizational fields’ (Wooten & Hoffman, 2008) and ‘organizational fields’ (Scott, 2014) are often used interchangeably (Meyer, 2008), and other related terms include ‘strategic action fields’ (Fligstein & McAdam, 2012) and simply fields (Bourdieu, 1986). Most scholars in the institutional theory of organizations use DiMaggio and Powell’s definition, which states that fields comprise ‘a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies and other organizations that produce similar services or products’ (1983: 148). This definition appears to privilege relationships among actors, or networks, and yet the structuration arguments on which it is based also emphasize shared understandings of power, knowledge, identities and boundaries among actors, as fields are formed by

an increase in the extent of interaction among organizations in the field; the emergence of sharply defined inter-organizational structures of domination and patterns of coalition; an increase in the information load with which organizations in a field must contend; and the development of a mutual awareness among participants in a set of organizations that they are involved in a common enterprise. (DiMaggio & Powell, 1983: 148)

Scott’s definition of organizational fields, ‘a collection of diverse, interdependent organizations that participate in a common meaning system’ (Scott, 2014: 106), emphasizes these shared understandings, as do definitions like Greenwood and Suddaby’s (2006: 28), defining the organizational field as ‘clusters of organizations and occupations whose boundaries, identities and interactions are defined and stabilized by shared institutional logics’.

Yet other definitions of fields emphasize conflict, rather than sharedness. Bourdieu, for example, viewed the field as ‘networks of social relations, structured systems of social positions within which struggles or maneuvers take place over resources, stakes and access’ (Oakes, Townley, & Cooper, 1998: 260). While this definition doesn’t necessarily indicate differences in meaning systems (simply competition over the pie), Hoffman (1999: 351) laid the foundation for differences in meaning systems by arguing that an organizational field

forms around a central issue – such as the protection of the natural environment – rather than a central technology or market ... fields become centers of debates in which competing interests negotiate over issue interpretation. As a result, competing institutions may lie within individual populations (or classes of constituencies) that inhabit a field.

Recent work extends this view that fields may be contested by focusing upon multiple, often competing, institutional logics (Reay & Hinings, 2005, 2009; Greenwood et al., 2011). A major thrust of this body of work has been on the movement from one logic to another within a field or, more recently, managing the existence of multiple logics in a field (Reay & Hinings, 2009; Scott, 2014). Indeed, the emphasis in discussing fields over the past decade has been primarily focused on the element of meaning, under the rubric of institutional logics (Thornton, Ocasio, & Lounsbury, 2012), though the idea of a plurality of actors being related to a plurality of logics brings networks and logics together to some extent (Hoffman, 1999; Lounsbury, 2002; Dunn & Jones, 2010; Voronov, DeClerq, & Hinings, 2013).

It is because of the emphasis on institutional logics in organizational fields that Greenwood et al. (2011) introduced the idea of institutional infrastructure. It is a recognition that fields are more than logics and directs attentions to the structural elements underpinning field activity. For example,

the positions of actors, their networks and relations, how they are governed, are key components of organizational fields. Power relations and subject positions, defined as ‘the socially “constructed” and legitimated identities available in a field’ (Maguire et al., 2004: 658), are central to both Bourdieu’s (1984) conceptualization of fields and also to Fligstein and McAdams’ (2012) idea of strategic action field. DiMaggio and Powell (1983) list suppliers, resource and product consumers, regulators and others. And they together with Wooten and Hoffman (2008) and Scott (2014) emphasize that these actors are in networks of relationships. Indeed, DiMaggio (1995) regretted that the network aspect of their argument had been lost. Padgett and Powell (2012: 2), from their work on fields, say ‘in the short run, actors create relations; in the long run, relations create actors’.

Such relations are made performable and reinforced by governance and field coordinating structures, practices and organizational structures that regulate and regularize day-to-day interactions in fields. Together, these elements are the ‘interlaced material, discursive, and organizational dimensions of field structure’, which align to create field stability (Levy & Scully, 2007: 971). It means that changing any one element may not be sustainable, if other elements overlap and reinforce old patterns, maintaining the field much as it was. Thus it is important to understand the *set* of institutions, or the institutional infrastructure and its elaboration and coherency in a field, in order to understand governance as well as field dynamics and change.

INSTITUTIONAL INFRASTRUCTURE

The idea of infrastructure is of the basic physical and organizational structures and facilities that are needed for the operation of a society or enterprise. ‘Infra’ itself refers to

‘below, underneath, beneath’ (Oxford English Dictionary). So, in examining *institutional* infrastructure we are looking, first, for the elements that provide for its elaboration and coherency in a field; second, how such elements are organized as to overlap with and underpin the formal governance of a field.

Conceptual Roots

The origins of the concept of ‘institutional infrastructure’ are in comparative political economy (Hamilton & Biggart, 1988; Soskice, 1991; Ostrom, Schroeder, & Wynne, 1993; Piatkowski, 2002), though the term has been used across multiple scholarly fields. The political economy work has compared the formal (e.g., legal and regulatory systems of a nation) and informal institutions (e.g., cultural norms and values of doing business) in national innovation and business systems, finding both influential for economic outcomes. For example, institutional infrastructure elements of democracy (Rodrick, 1997), income inequality, sociopolitical stability, and other measures of institutional quality (Alesina & Perotti, 1996) have been studied in relation to economic growth (Gimenez & Sanau, 2007), and corruption, the rule of law, bureaucracy, repudiation of contracts and risk of expropriation have been studied in relation to economic performance. Institutional infrastructure is seen as the set of political, legal and cultural institutions (Boettke, 1994), that form the backdrop for economic activity and governance, enabling (or constraining) its smooth operation. These elements overlap, reinforce one another, and may sometimes substitute for one another. Marquis and Raynard (2015), for example, describe how informal institutional infrastructural elements, such as networks and business groups, intermediary organizations, and business processes, may substitute for missing formal institutional infrastructure in emerging markets.

Work on transnationalization (Djelic & Quack, 2008), and globalization and world society theory (Drori, 2008) has also examined the development of institutional infrastructure in the form of institutions across national boundaries that enable/constrain and govern trade (Djelic & Quack, 2008). There has been an increase in these international organizations, such as the World Trade Organization, NAFTA, GATS, and associated regulatory networks such as the International Competition Network, the SEC, that have become institutionalized. ‘Many non-governmental organizations have been established that engage in standard setting, accreditation and other forms of soft regulation’ (Djelic & Quack, 2008: 311). Drori (2008) recognizes this development of an institutional infrastructure at the transnational level, through the lens of world society theory, emphasizing ‘the diffuse state of authority of the global system, on the role of institutional mechanisms in the cross-national diffusion of ideas and practices, and on the rationalizing and standardizing impact of international organizations, the professions, and the universalized models they carry’ (p. 449).

Institutional infrastructure has also been used to study smaller social groups. Within neighborhoods, institutional infrastructure has been used to describe ‘the level and quality of formal organizations in the neighborhood’, measured by the existence of neighborhood organizations and their ability to influence policy makers on behalf of the neighborhood (Temkin & Rohe, 1998: 70). In education, the institutional infrastructure for coordinating children’s services was noted to include five aspects: ‘(a) convening and goal-structuring processes, (b) institutional interests and reward systems, (c) relations to external environments through institutional activity, (d) communication linkages, and (e) institutional conventions’ (Smylie & Crowson, 1996: 3). Again, both formal and informal institutions are included, though it must be acknowledged that institutional infrastructure at the level of smaller or more local

groups is affected by the societal infrastructure within which the group is embedded.

Elements of Institutional Infrastructure in Organizational Theory

In organization theory *per se*, the idea of institutional infrastructure reflects understandings of the embeddedness of organizations within fields and the structuration of fields that occurs through interactions and institutional activity amongst actors (DiMaggio & Powell, 1983; Dacin, Ventresca, & Beal, 1999). For example, Waddock (2008) sees infrastructure being developed through activities such as certifying, assuring and reporting against principles, codes and standards; by forming new associations and networks of relations among organizations. Compagni, Mele and Ravasi (2015) emphasize the importance of constructing institutional infrastructure through professional associations and conferences to structure social relationships, develop field narratives of quality and contribute to the diffusion of new practices. The emphasis is on a set of institutions whose coherency and degree of elaboration underpin field activity, and interact with formal governance systems.

Greenwood et al. (2011) specifically use the term institutional infrastructure in developing their arguments about institutional complexity. They mention: collective actors (especially professional associations, and the state); social control agents; infomediaries; tournament rituals; theorization; mechanisms of enforcement; and state regulation. They have no definition of institutional infrastructure *per se*, but their descriptors are primarily a set of actors or structures which have the role of judging, governing or organizing other actors in the field. Collectively, they provide the structures by which status in the field is determined, by which interests and values are made collective and enacted, and by which the behavior of rank-and-file field members

is guided or enforced. These authors see institutional infrastructure as important in producing a framework for comparing fields. In particular, they draw attention to and stress the role of collective actors such as professional associations, international, national and local governments. They also point to the processes that bind a field together as part of institutional infrastructure, such as mechanisms of enforcement and various kinds of regulation or field governance. These ideas are taken up by Raaijmakers et al. (2015) who particularly mention professional associations, health and safety inspection agencies and media as part of institutional infrastructure that underpins the governance of the field. Bell, Filatotchev and Aguilera (2014) similarly draw attention to the importance of regulatory institutions, governmental organizations, legislation and court decisions as 'primary regulative agents'. Other authors refer to status conferring events or structures such as awards (Anand & Watson, 2004) or quality ratings, accreditation or standards bodies (Sauder, 2008), conferences and professional associations (Lampel & Meyer, 2008; Compagni et al., 2015), fairs and film festivals (Moeran & Strandgaard Pedersen, 2011), and coordinating mechanisms or collective interest organizations such as industry collaborative R&D, lobbying or trade bodies (Gurses & Ozcan, 2015), market information providers (Marquis & Raynard, 2015), and legitimized structures such as organizational templates (Greenwood et al., 2002; Suddaby & Greenwood, 2005), as components of a field's institutional infrastructure.

Thus, the concept of institutional infrastructure is defined as the set of institutions that prevail in a field. This structural approach to understanding field dynamics provides two benefits: (1) redirecting attention to understandings of field dynamics as beyond logics and meaning, and (2) offering opportunity to compare across fields by having a means by which to define and typologize field conditions. While the definition of institutional infrastructure is seemingly all encompassing,

what matters for understanding field dynamics and comparing conditions across fields is considering its degree of elaboration and its coherency (Zietsma et al., 2017). Thus, based on these conceptual roots, suggestive theorizing by Greenwood et al. (2011) and our review of the concept and its (limited) use we consider main elements of institutional infrastructure to include collective interest organizations, regulators, informal governance bodies, field-configuring events, status differentiators, organizational templates, categories or labels, and norms.

INSTITUTIONAL INFRASTRUCTURE AND GOVERNANCE

Governance has been identified as a key aspect of fields (Fiss, 2007; Kraatz & Block, 2008; Scott, 2014). Studying field-level governance is about control, authority, influence and legitimacy. While these are ongoing themes in institutional theory (cf. Scott, 2014), they have not been set with the overall notion of governance. This is surprising given the emphasis that Fiss (2007), Kraatz and Block (2008), Fligstein and McAdam (2012) and Scott (2014) give to it, and also the extensive work that has been carried out on comparative organizational governance (Aguilera & Jackson, 2010). Scott (2014) states that governance is an important subset of relational systems within a field. Kraatz and Block (2008) point out that governance has not been treated as something that varies across fields, or examined in situations of pluralism or institutional complexity (unlike work on organizational governance). Scott (2014: 231) states that 'each organization field is characterized by a somewhat distinctive governance system' thus pointing the way to a comparative analysis of governance.

Thus, governance is a critical part of organizational fields; there has been work on governance actors without locating them within a theory of field governance; and there

is a need for a comparative lens. But in order to do this, it is necessary to understand the difference between, and the relationship of governance with, institutional infrastructure.

As per our definition, we consider institutional infrastructure as being more than field governance, yet necessarily overlapping. We define field governance as the formal mechanisms that enable or constrain field activity and dynamics. For example, some of the elements of institutional infrastructure cited by Greenwood et al. (2011), Bell et al. (2014) and Raaijmakers et al. (2015) clearly relate to field governance. Defined as 'combinations of public and private, formal and informal systems that exercise control within a field' (Scott, 2014: 244), or units and processes that ensure compliance with rules and facilitate 'the overall smooth functioning and reproduction of the system' (Fligstein & McAdam, 2012: 14), governance most tangibly includes regulations, standards, reward systems and social control agents that monitor and enforce those regulations, standards and reward systems. Yet underpinning these formal governance systems are cultural norms, taken-for-granted assumptions, scripts and practices, incentives and interest structures, roles, relationships and organizational and field structures, all of which are part of the broader institutional infrastructure of a field. Rather than subsuming each of these elements into governance, we refer to formal governance roles and structures as governance, and include the informal norms, meanings, status differentiators, etc. as part of the institutional infrastructure, which supports the functioning of governance mechanisms.

Governance, then, is a subset of institutional infrastructure, and both are field-level constructs. Institutional infrastructure covers the set of institutions that prevail in a field, including a wide range of subject positions, relationships, practices, events and structures, some of which are to do with governance and some of which are not. Many collective actors such as regulators, professional associations and governments are part of the governance

Table 6.1 Dimensions of institutional infrastructure and governance

<i>Institutional infrastructure element</i>	<i>Examples in literature</i>
Collective interest organizations	Unions, professional associations (Greenwood, Suddaby, & Hinings, 2002; Lounsbury, 2002; Purdy & Gray, 2009; Washington, 2004), industry associations (Porac et al., 1989; van Wijk et al., 2013)
Regulators	National (Dobbin & Dowd, 1997), provincial (Greve, Palmer, & Pozner, 2010), industry, transnational (Djelic & Quack, 2003), geographic (Marquis, Lounsbury, & Greenwood, 2011)
Informal governance bodies	Certification or standards bodies (Reinecke, Manning, & Von Hagen, 2012), infomediaries (Deephouse & Heugens, 2009; King, 2008; Hoffman & Ocasio, 2001); boundary organizations (O'Mahoney & Bechky, 2008); accreditation organizations (Quinn Trank & Washington, 2009; Zuckerman, 1999); voluntary governance organizations (Washington, 2004)
Field configuring events	Events, conferences (Lampel & Meyer, 2008), exogenous shocks (Zilber, 2009), trade shows (Garud, 2008), Olympics (Glynn, 2008), fairs and festivals (Moeren & Strandgaard Pedersen, 2011)
Status differentiators	Labels, measures, signals, rankings, resources, education, historical position, award ceremonies (Anand & Watson, 2004; Rao, 1994; Wedlin, 2005); infomediaries (Anand & Peterson, 2000; Sauder, 2008)
Organizational models or templates	Professional partnerships (Greenwood, Hinings & Brown, 1990), managed professional businesses (Greenwood & Hinings), hybrid organizations (Battilana & Lee, 2014)
Categories/Labels	Genres (Hsu, 2006), technology classes (Wry & Lounsbury, 2013), mutual funds into high and low risk (Lounsbury & Rao, 2004), listed corporations into industries (Zuckerman, 1999), partitioning of markets (Pachucki & Breiger, 2010;)
Norms	Education and professional training (Greenwood, Suddaby, & Hinings, 2002)
Relational channels	Normative networks (Lawrence & Suddaby, 2006; van Wijk et al., 2013; Garud, Jain & Kumaraswamy, 2002)

of a field. Greenwood et al. (2011) also see events such as trade shows and award shows as part of institutional infrastructure but, for us, these are not part of governance, which is about the formalized systems that ensure control and compliance within a field. Table 6.1 summarizes the dimensions of institutional infrastructure and governance that we have developed.

INSTITUTIONAL INFRASTRUCTURE AND ORGANIZATIONAL FIELD CONDITIONS

Institutional infrastructure has significant implications for the conditions of organizational fields, depending on the extent of its elaboration and its relative coherency (see also Zietsma et al., 2017). Where institutional infrastructure is highly elaborated and there is a unitary dominant logic within the

field, we describe the field as *established* and relatively stable – the institutional infrastructure is highly coherent. Formal governance and informal infrastructure elements are plentiful in such a field and are likely to reinforce one another significantly, leading to a coherent sense of what is legitimate or not within the organizational field. Many studies of field change begin with the field in an established state (e.g., Greenwood et al., 2002; Zietsma & Lawrence, 2010). In fields where there are competing logics (low coherency) and highly elaborated institutional infrastructure, we would again see multiple formal governance and institutional infrastructure elements, but these may conflict with one another or compete for dominance (Reay & Hinings, 2005; Rao, Morrill, & Zald, 2000). We would describe the field as *contested*. Where there are compartmentalized or prioritized logics within organizational fields, and highly elaborated institutional infrastructure and governance,

Table 6.2 Institutional infrastructure and organizational fields

<i>Relative coherency/Elaboration of institutional infrastructure</i>	<i>Unitary (high coherency)</i>	<i>Competing (low coherency)</i>	<i>Compartmentalized/Prioritized (coherency within subfields, ordering of subfields)</i>
High elaboration	Established	Contested	Subfields
Low elaboration	Aligned/emerging	Fragmented	Emerging subfields/fragmented

we would describe the field as arrayed in subfields, with coherency within subfields, and incoherency between them, but which coexist without substantial competition. Consider Weber, Heinze and DeSoucey’s (2008) description of the grass-fed beef sector, wherein grass-fed beef producers had cultural codes, markets, supply chains, etc., which were both separate from and different than those of mainstream beef producers. Similarly, studies of medical fields often include compartmentalized physician, nursing and administrative institutional infrastructures. Table 6.2 outlines these different fields.

When infrastructure has a low degree of elaboration, we would describe fields with unitary logics (high coherency) as emerging or *aligning*. The satellite radio field, for example, began with an aligned sense of what the field was about (Navis & Glynn, 2010), as did the information schools described by Patvardhan, Gioia and Hamilton (2015). Fields with low coherency and limited elaboration of institutional infrastructure are described as *fragmented*, with competing conceptions of what is legitimate. Fields with compartmentalized coherency and low elaboration are described as having *emerging subfields*.

INSTITUTIONAL INFRASTRUCTURE AND GOVERNANCE IN THREE FIELDS

To further develop our arguments, we turn now to an examination of three specific organizational fields with differences in their institutional infrastructure, their governance

and their states of development and change processes: those of professional service firms (Empson, Muzio, Broschak, & Hinings, 2015), forestry in British Columbia, Canada (Zietsma & Lawrence, 2010) and impact investing in Australia (Logue, 2014). We summarize our discussion in Table 6.3. The most effective way to illustrate how institutional infrastructure and governance interact is by examining field level change, and thus we discuss changes in these fields over time.

The Professional Services Field

Historically, the *professional services field* was stable, tightly controlled and a highly normative space of interaction, with a unitary logic. Firms, professional associations, educational providers and regulators, were part of a highly elaborated and coherent institutional infrastructure that linked them, often at a provincial or national level. Collective interest organizations worked together with formal regulators; consequently, processes of structuration were strong. As trustees of the rule of law, with a close compact with the state, this normative basis of power was reproduced and maintained as part of a well-understood, elaborated, governance structure. Mandatory membership with routines of licensing, training and professional development and the monitoring and disciplining of behavior were (and remain) critical cognitive and regulative mechanisms of both governance and institutional infrastructure. Governance was centrally organized around professional associations and regulators with high levels of coordination and well-defined processes of field entry. In addition, institutional infrastructure included large firms,

Table 6.3 Institutional infrastructure and governance in three fields

	<i>Professional service firms</i>	<i>Forestry</i>	<i>Impact investing</i>
Logics	Initially unitary yet increasingly complex and challenged	Initially unitary, then contested then environmental elements were embedded in the forestry field's logic	Emerging, unitary around market logic
Relative elaboration of institutional infrastructure	Highly elaborated institutional infrastructure	High – from highly elaborated yet unitary, to highly elaborated with subfields	Low yet aligned/emerging
Governance	Formal mechanisms highly elaborated and powerful via licensing, accreditation	Formal, via legislation and government oversight; official stakeholder consultation structures were instituted in response to contestation; lobbying and voluntary agreements eventually changed formal regulations	Formal governance mechanisms absent, drawing upon rules of market
Collective interest organizations, e.g. unions, associations, trade and lobbying organizations	Deeply institutionalized and established and providing relational channels across field; involved in formal (maintaining accreditation, professional development) and informal governance arrangements (codes of conduct)	Trade associations coordinated lobbying, joint R&D, international trade, etc.; union and supplier organizations; astroturf group; environmental groups coordinated informally. Later, key environmental groups and forest companies formed the Coast Forest Conservation Initiative	Absent, yet to form, some collective interest organizations in form of associations of charity and non profit organizations yet little voice
Regulators	Highly regulated at local, state, national levels. International regulators exist yet have less coercive power; proliferation of standards	Highly regulated at provincial level (primary). National level, and internationally through trade agreements	Working out the rules of this new space, existing regulators form other fields, often a barrier
Informal governance bodies	Transnational nature of practices activity leads to more interaction with civil society groups and use soft power	Lobbying, environmental movement via norms and collaborations, sustainability certifications via national and international voluntary governance bodies	Absent
Field configuring events	Not important as field is highly established (difficult to disrupt via FCE?); some international FCEs may generate new subfields of expertise, e.g. climate change law etc ? Indirect affect of FCEs?	Stakeholder consultation tables	Important in gathering together diverse stakeholders in a new space, negotiating and working out who is in/out of field
Status differentiators	Based at organizational level (firm age, size, success), based on field of expertise/practice (law, accounting, consulting) – more normative than formal rankings/ratings	Not strong, status based on resources, market share and ability to mobilize or direct/redirect field attention; some differentiation made possible through the introduction of sustainability certifications	Not strong, status based on resources in this emergent stage, thus supply side/investors leading development of space
Organizational models or templates	Highly institutionalized although move over recent decades from Professional Partnership to Managed Professional Business (MPB) without significant change in institutional infrastructure or governance, mainly to address client needs	Harvesting model was highly institutionalized for forestry firms; new harvesting practices changed the model, but were integrated into existing organizational templates	Being borrowed from other fields, leading to hybrid forms (e.g., social enterprises)
Categories/Labels	Not important part of institutional infrastructure or governance	Sustainability certifications – using labeling to challenge status and direct attention	Labels for new organizational forms and activities important for understanding the boundaries of the emerging field (identity, who is in/out)
Norms	Trustees of the rule of law, normative basis of power	Profitability and control norms adjusted by embedding new norms on environment and sustainability into the market logic	Increasingly draw from logic of the market (underpinning analogy)

which, while not formally part of governance, were important actors with high status in establishing legitimated organizational forms and centers of training, along with universities (Greenwood et al., 1990; Malhotra, Morris, & Hinings, 2006; Leblebici & Sherer, 2015). Central to the field has been a well-developed organizational model or template, the Professional Partnership or P² form (Greenwood et al., 1990; Greenwood, Hinings, & Prakash, 2017), reflective of norms of self-governance and arguably social hierarchy. Because of this stability in both governance and institutional infrastructure there are no significant field-configuring events, nor the use of categories or labels.

While the PSF field remains basically unitary, it has become increasingly complex with challenges to existing governance. This institutional change of recent decades has been a subject of much scholarly examination focusing on both field and organizational levels (for a summary see Empson et al., 2015). This change was partly driven by actors already within this unitary field – clients – whose demand for services and increasingly transnational business activities, led to changing institutional infrastructure and governance, especially as a consequence of a stronger presence of a market logic into the field. Thus, as jurisdictional boundaries and demand for services have become transnational, there has been a shift from a highly normatively structured professional field to a globally competitive field governed by the market and increased regulations, standards, and trade agreements. PSFs have become an international one-stop-shop for various and increasingly dispersed clients.

As a result of these changes both institutional infrastructure has become even more elaborated and governance has become more complex. More actors have entered the field, especially new kinds of collective interest organizations such as business and civil society groups; clients have been increasing their role and strengthening their relationships with service providers. Indeed, the power and

status of clients has increased. Regulation has become more complex with oversight boards at both the national, transnational and international levels being added to existing regulatory structures. More networks that cross national boundaries have developed and this has produced informal governance bodies with ‘soft regulation’ (Djelic & Quack, 2008). All of this has involved the proliferation of rules, standards, classification schemes, evaluation procedures, and attempted standardization and formalization of public reporting across policy fields with international trade agreements. There are more implicit rules, templates and schemas. Thus, within this the institutional infrastructure has become both more complex and more fragmented as it extends over multiple jurisdictions. Power has also shifted somewhat to large transnational firms.

The P² organizational form is now contested and some have suggested that there has been some transformation to a Managed Professional Business (Cooper, Hinings, Greenwood, & Brown, 1996; Malhotra et al., 2006). This reflects the stretching of field boundaries (Morgan & Quack, 2006; Djelic & Quack, 2008; Bousseba & Morgan, 2015) and the presence of a stronger market logic.

There are many more actors involved in field governance. While professional associations remain important in establishing credentials and controlling the flow of labor but there are now competition authorities, stock market regulators and public oversight boards and, with the field becoming transnational, actors such as the World Trade Organization and transnational regulatory bodies are active. Both regulators and collective interest organizations have increased in number.

All of this represents a change in normative structure due to the breakdown of the compact between the professions and the state. These new kinds of regulators and collective interest organizations are introduced as guardians of the public interest, an acknowledgement that the professional associations have not been concerned with this as a primary function. They are supported by new

actors such as NGOs, who are also involved in standard setting and developing new categorizations, often drawing power from international agreements as they monitor activity within the field. However, the national, singular professional field system still exists and provides barriers to entry for labor. This historical structuration for the continued operation of the field has been preserved.

Thus, the governance of the field is both voluntary (through certifications, marketing agreements, trade associations, lobbying, etc.) and mandatory by the state (local, provincial, national). It is normative (professional associations, education), and negotiated (as transnational, many stakeholders), as well as having elements of coercion (through pressures from stakeholders) and traditional disciplinary measures relating to practice. The shift from national, singular professional service fields to transnational, multi-service professional service fields is seemingly the blending of structurally equivalent fields. While field boundaries and practices have expanded, and pressures of globalization have loosened national controls, professional service firms have maintained normative power (and in a sense, the closure of the field) through the preservation of institutional infrastructure that enables the reproduction of ideals of self-governance and societal positioning, and so continued operation of the field.

While the change that we are describing in this field may appear radical in both institutional infrastructure and governance, it has occurred over a lengthy period of time and was, in part, endogenous. What we actually see is both continuity and change (Malhotra & Hinings, 2015). Table 6.3 summarizes the professional service firm field's institutional infrastructure and governance.

The Forestry Field

In their study of the field of *forestry in British Columbia (BC)*, Zietsma and Lawrence (2010) explored the institutional

work of actors as the field underwent considerable change over a 20-year period. At the beginning of their study period (1985), a small number of long-established forestry firms and the provincial government together (and in close relationship) dominated the field, which was highly regulated, had a highly elaborated institutional infrastructure and featured a unitary, highly coherent industrial forestry logic that emphasized gaining maximum economic value (profitability and jobs) from forest resources, and replanting them for future use. A number of collective interest organizations existed, including industry associations (again, dominated by the elite forestry firms) and organizing bodies for shared research and development, international trade and marketing. A strong union organized forest workers, and engaged in sector-wide bargaining. Independent suppliers of transportation were organized into a Truck Loggers Association. The professional association of foresters worked with the faculties of forestry at BC universities to develop the normative framework for forest practices, to materialize the norms into practices and train and socialize professional foresters into these normative/practice frameworks. This centralized and mutually reinforcing set of institutional infrastructure elements served to produce stable governance institutions and thus maintain consistent action within the field, determining which actors had influence on field decision-making. Indeed, institutional infrastructure elements almost completely reinforced one another.

From the 1960s onward, however, there has been an increase in societal concern for the environment. The environmental field is a social movement field (Zietsma et al., 2017) with its own institutional infrastructure. Various environmental non-governmental organizations (ENGOS) play different roles (Bertels, Hoffman, & de Jordy, 2014): educational institutions teach principles and practices of environmental science and management, and consultants, business organizations and government agencies are dedicated

to environmental improvements and management. The field's institutional infrastructure is decentralized with many actors, informal networks and little to no formal governance. Key normative principles exist, however. They involve the valuing of the natural environment for its own sake, preventing or mitigating climate change impacts, halting environmental degradation and loss of habitat and biodiversity, promoting sustainable natural resource use, reducing risks and problems of waste/emissions and disposal, air and water quality, etc.¹ The environmental field seeks to add environmental issues to multiple other fields' governance arrangements and infrastructure, focusing on fields in which environmental degradation is occurring. Environmental field members often seek to have new governance arrangements applied to other fields such as increased environmental regulations, monitoring and enforcement, along with multi-stakeholder consultation processes and sustainability certifications. Forestry has been an early focus for the field. ENGO campaigners that focused on forestry developed a set of practices, principles, relationships and mechanisms, which they used to gain access to and influence within the BC forestry field: in effect, they formed an issue field with two subfields, with divergent infrastructure, to challenge the BC forestry field. Their relational channels included other ENGOs, First Nations peoples,² the media, the public (through campaign events), regulators related to forestry and the environment in BC, and eventually, other businesses that used or sold wood or paper products. Initially, they were not part of the normal relational channels of forestry firms or the government, since at the beginning, they lacked the attention of both the voters and the customers of the forest companies, and there was no role in the forestry field for actors of their type. They thus were excluded from the power structure of the field, and had no impact on field governance. The forestry field's infrastructure provided multiple, overlapping barriers for their influence.

Over time, however, the ENGOs were able to gain the normative support of many voters, and thus had some impact on government action. In response, forestry firms activated the employees and forest-dependent community members into an 'astroturf' (or pseudo-grass roots) group, to countervail the green voters, and lobbied their government network, curtailing government action. All of this points to an increasingly complex infrastructure and an existing governance system that was under pressure but not yet replaced by a new, legitimated one.

ENGOs then pursued a market-based strategy, convincing international customers of the forestry firms to demand more sustainable practices. Once these demands came from the field's usual relational channels (customers), thus becoming consistent with the market logic, the forestry firms very quickly began to assimilate infrastructural elements desired by ENGOs into their own field infrastructure. Clear-cutting was abandoned by the lead firm overnight (in 1998), and others followed soon after. Sustainability certifications were adopted. Lead forestry firms and environmental groups together formed a collective interest organization called the Coast Forest Conservation Initiative, which conducted joint research and participated influentially in multi-stakeholder consultation structures. These structures were field-configuring processes to negotiate new eco-system based management forest practices to protect ancient forests, wildlife corridors and First Nations' rights (Zietsma & McKnight, 2009). Together, members of the stakeholder consultation structure lobbied the government to change forest regulations to mandate these ecosystem-based practices, ensuring stakeholder interests were permanently embedded in forestry field governance arrangements, and over time into the forestry field's logic, through continued elaboration of infrastructure (certification practices and reports, environmental reports, changes in harvesting models embedded in the organizational template, etc.). Thus, out of that changing

institutional infrastructure, a new governance system was instituted that included the interests of a wider range of actors, new networks and changed power relations. New infrastructure came into play when new actors demanded influence – initially they were unable to influence formal governance mechanisms, yet eventually, through relationships and changes to institutional infrastructure elements that the environmentalists could gain access to, there were new regulations governing the field. Stakeholder concerns also became embedded (and performative) within firms, and within the institutional infrastructure of the forestry field.

From this case example, we saw that logic (meaning and practice), relational channels, power and governance elements that ENGOs sought to bring into the BC forestry field were blocked for many years by elements of the forestry field's infrastructure for which they were inconsistent. These changes would reduce the power of firms and their regulators, contradict their established field logic and violate field governance arrangements, and they came from new actors outside of field relational channels. Each of these mutually reinforcing infrastructural elements had to be unlocked before sustainable forest practices could be instituted. When the change came, however, it happened quite rapidly across each of the elements of institutional infrastructure, producing a new governance structure. Table 6.3 summarizes the forestry field's institutional infrastructure and governance.

The Impact Investing Field

In contrast to the established and historical fields of professional services and forestry, *impact investing* is a nascent field with lower elaboration of institutional infrastructure, yet rather unitary in its emergence, making it an aligned/emerging field. Its emerging governance, both formal and informal is grounded in the idea, and so the rules, of a market. The

practice of impact investing involves investing in companies, organizations and funds with the intention of generating measurable social and environmental impacts as well as financial returns. This market-building social movement gained speed after the Global Financial Crisis, with philanthropists, global institutions, banks and consulting firms supporting the notion (with varying motivations) that profit-seeking investment can generate social and environmental good, and could go towards addressing the complex, multidisciplinary, intractable and 'wicked' problems (Rittel & Weber, 1973) facing nations and the world in general.

As a new field, impact investing is emerging at the intersection of other fields – philanthropy, investment and finance, corporate social responsibility and social entrepreneurship. The institutional infrastructure is emerging in an interstitial space; this is interesting for institutional scholars as interstitial spaces (between fields) and field-to-field relations (Evans & Kay, 2008; Furnari, 2014; Pache & Santos, 2010; Van Wijk, Stam, Elfring, Zietsma, & den Hond, 2013) are neglected yet theoretically generative areas (Zietsma, et al, 2017). In impact investing, the desired governance and institutional infrastructure of the field seems rather coherent, despite a diversity of stakeholders being involved in market-building efforts, drawn from the idea of a self-governing market. While the field itself may be emerging from the intersection of several fields, the dominant logic is that of the market, which is present to a greater or lesser degree in each of the surrounding fields. The idea of the all-knowing efficient market, and the well-institutionalized scripts that come with it, is translated and transferred from other sectors (Wall Street but also education, health); the consequent materials required for this impact investing market are drawn from taken-for-granted assumptions and ideas about what a market needs to function – supply, demand, rankings, ratings and those to do the ratings (Logue, 2014). The market thus becomes the central, naturalizing

analogy for organizing and building institutional infrastructure for this field, providing a powerful cognitive force (Logue, Clegg, & Gray, 2016).

If we look at the emergence of this field in Australia, this recent market-building activity was led by the government (Logue, 2014), which set about structuring the relations between diverse and disparate actors through a Senate Inquiry, an early *field-configuring event*. Some existing *collective interest groups*, such as associations of charities and non-profit groups, participated, although they were few when compared to the diverse range and large number of other organizations – banks, religious organizations, investors, superannuation funds, social enterprises, corporate foundations, etc.

Emanating from this field-configuring event was a dominant discourse that the supply side of the market was under developed. So to support early market-building activity, the government provided matching funding to catalyze the establishment of three impact investing firms (supply side). The actions and practices of these firms are increasingly seen as the appropriate way to perform impact investing, particularly the measuring and public reporting on such investments. *Formal regulation* is lagging, with little formal structuring and actors needing to operate within existing frameworks from their fields of origin. For example, non-profit structures and restrictions on equity financing, public reporting on charitable donations, corporate financial structures (such as superannuation firms and trusts) requiring pursuit of maximum financial return (referred to as the ‘sole purpose test’ in the Superannuation Industry Act) and not allowing pursuit of lesser financial return for social return. The institutional infrastructure was being built up, with the government taking a leading role in identifying actors, but without any real specification of relationships. Thus, pre-existing networks came into play and power rested with established market actors.

Informal governance of the field is emerging through certifying social impact through

new global organizations such as BLab, which awards companies a BCorporation certification if they are achieving financial, social and environmental returns. This certification can be withdrawn if a company fails to maintain this triple bottom line performance. This certification is increasingly used as a short-cut for impact investors needing due diligence on possible investment opportunities, as evidenced by some social stock exchanges only listing BCorporation certified companies. Globally, the market also seems to be converging on another measurement system of impact investments, Global Impact Investment Ratings System (GIIRS) that measures impact of companies, investments, funds and fund managers. Control partly rests with rating agencies. Beyond certification, other *status differentiators* are not strong, and field positions in this early stage are mainly based on resources such as capital.

Even at this early stage, the field is seemingly converging around common *organizational templates and models*. Although there is yet to be an agreed-upon archetypal organizational template (Greenwood & Hinings, 1993) for such hybrid organizations (Battilana & Lee, 2014), the discourse frequently focuses on for-profit models suitable for generating impact investing, providing debt and equity options for such investors. For example, debate continues as to whether Australia needs a new legal corporate form such as the UK’s Community Interest Corporations, or the US Benefit Corporation to address such investor needs. In this way, the charity or non-profit models becomes just one organizational form in the new social economy (Logue & Zappala, 2014). Field configuring debates increasingly *categorize and label* organizations as ‘social enterprises’, these labels determining who is considered eligible (or legitimate even) to participate in this new field, particularly on the demand side (social enterprises, social businesses, non-profits, charities). This labeling begins to set the boundaries of the field and elaborate institutional infrastructure.

All of this market-building activity further supports the emergence of educational actors offering programs to get social enterprises ‘investor ready’, by both private intermediaries and consulting programs offering accelerators programs, to universities offering Masters programs (within Business Schools) specializing in social entrepreneurship. Not only does this educate incoming actors into this market, it establishes the dominant cognitive framework from business (as opposed to say, social justice). Having formally recognized postgraduate courses also goes towards aligning and legitimizing the activities of this nascent field by other fields and contributes to establishing a *normative framework* for field activity. Thus, governance at this nascent stage is more normative, based on influence and attempts to educate actors, rather than structural or based on formal regulation or rights.

What is also interesting in the emergence of this market, is the frequent cry in Australia and many other national markets, that there is a lack of ‘investor ready enterprises’, or that investors also need to be educated. So, while there is both a visible demand side to this market, and a willing supply side, the market itself fails to emerge without the necessary institutional infrastructure in place. There is yet to emerge a common language or meaning system through which these different groups of actors can readily communicate and interact. A body of literature across the social sciences has demonstrated how markets are socially constructed rather than being entities ‘out there’, and has highlighted the crucial role of culture and politics involved in the organization of markets and in creating the governing ‘rules of the game’ (e.g., North, 1990; Fligstein, 2001; Fligstein & McAdam, 2012; Padgett & Powell, 2012). These categories, labels, certifications, practices, events and educational programs begin to provide the necessary infrastructure for these actors to frequently and fatefully meet, connect and transact. This infrastructure enables and supports the development of relationships,

norms and beliefs amongst actors, and so the necessary governance and social structure of the market to form (McKague, Zietsma, & Oliver, 2015).

As a nascent, emerging field, we see an initially fragmented, unstructured and decentralized institutional infrastructure with such governance as there is being imported from intersecting fields. Power in the field rests both with governments as they attempt to organize the field and also through the acceptance of market-based approaches. The elements of governance begin to emerge in certification, educational programs and field-configuring events but there is still not a definitive governance system. Table 6.3 summarizes the impact investing’s institutional infrastructure and governance.

Cross-field Comparison

Overall, our three examples show both major contrasts and some similarities. In terms of an overall field description we categorize the institutional infrastructure of professional services as established to begin with but becoming more complex and with challenges to existing infrastructure and governance. Forestry is also initially established but becomes contested and then compartmentalized into distinct subfields. These two fields began with a period of stasis, with a set of mutually reinforcing, highly elaborated, institutional infrastructure elements that maintained and governed the field. In both fields, there was a strong relationship between the state and the professions (PSF) and firms (forestry), which enabled significant self-governance (especially among professions), or which gave considerable input by firms and professions into field regulations. Thus, collective interest organizations represented firms and the profession with key roles for the professional associations (PSF) and the industry associations (forestry), both of which were dominated by members from the top firms in the field.

Status differentiation in these fields was based in the large firms. In both cases, education and professional associations reinforced field norms, practices and regulations. In both fields, what one 'must do' to be legitimate was relatively clear, prescriptive and policed through self-regulation and well-established categorization. Organizational models were highly institutionalized.

While the starting point for these two fields was similar, the nature of the changes in both institutional infrastructure and governance were different. In the PSF field, we saw endogenous and incremental processes of change, largely unimpeded by infrastructural barriers and existing governance. In contrast, in the forest industry, the field's institutional infrastructure acted as a significant barrier to change, and little change happened until a radical shift appeared which seemed quite sudden. What accounts for these differences? In both cases, new logics arose in society that were brought into the field – globalization and market logics for the PSF field, and environmental and social justice logics for the forestry field – yet they had dramatically different effects as they interacted with the institutional infrastructure and governance of the respective fields.

In the PSF field, the new logics had some complementarity with existing logics, which already included norms for client service and profitability, but they also emerged from 'normal' (cognitively and morally legitimate) sources, both collective actors and high status field members. PSF firms were asked by their customers to expand their practices both internationally and by discipline (Greenwood et al., 2002), which fit with PSF firms' norms of client service and profitability. Governments, for their part, were also experiencing strong pressures for globalization and market logics from many other sources at the same time, including other states and state agencies, lobbyists, voters and other influencers. These logics were seen as modern and fully consistent with a government's focus on the economic prosperity of their state.

These logics, and the organizational structures and practices that materialized them, also did not disrupt existing power structures and professional norms to a great extent. PSFs remained largely self-governing although new organizational models were available. While states saw their power falling because of the increasingly transnational nature of the business, new regulators were added to take part in governance and new regulations and reporting requirements were introduced to protect their citizens' interests. At the transnational level, new collective actors and regulators came into being; NGOs worked to counterbalance rising PSF power (and the rising market logic) by pushing for voluntary governance arrangements in order to preserve professional standards. While there were frictions with each change, the changes were largely consistent with, and preservative of, existing institutional infrastructure, and thus they proceeded relatively smoothly. No new categories or labels were introduced.

In the BC forestry case where two fields came together, the environmental field's institutional infrastructure was inconsistent with that of the forestry field in multiple ways: based in different norms, and advocating different practices. It also emerged from illegitimate relational channels, threatening the traditional power structure of the forestry field and expressly violating existing governance arrangements. The path of change took much longer and shifted more radically than incrementally when change occurred. New collective actors were introduced and this led to more status differentiation. Forestry firms used their relationships with regulators to block changes, and activated their employees and forest-dependent communities to provide a normative counter-argument to those of ENGOs based on economic prosperity. Thus, the various collective actors were in conflict. Furthermore, they normatively supported and policed each other to maintain solidarity against these divergent pressures. When the pressures for change finally

came from legitimate channels (voters for the government, and customers for the forestry firms), and when they became more consistent with the forestry field's market-based logic because of customer demands, forest companies changed their practices and began in earnest to negotiate new governance arrangements that eventually became inscribed in law and organizational structures. Governance became more inclusive and institutional infrastructure more supportive of a range of actors and regulators together with new norms.

The difference between the PSF case and the forestry case is the relative consistency or inconsistency with existing infrastructure that determined the path of change (and the consequent resistance to the changes faced in fields). In two highly institutionalized fields, with mutually supporting infrastructural elements, we can expect changes that are inconsistent with institutional infrastructure to take longer and appear more dramatic, as the multiple, mutually reinforcing infrastructural elements act as supports for each other. Opening the door to change was difficult because the door had multiple locks. By contrast, when changes were more consistent with institutional infrastructure, the door was at least partially open, and the changes that did occur took place relatively uneventfully over time.

Even challenges that appear inconsistent with the field's infrastructure may lead to incremental change, however, if field elites recognize a potential threat that they feel they can control, maintaining existing power structures. In the mainstream tourism field in the Netherlands, for example, incumbents faced demands from a sustainable tourism field in a fragmented state (limited institutional infrastructure and competing logics) (van Wijk et al., 2013). The mainstream tourism field's institutional infrastructure, by contrast, was much more elaborated and internally consistent. Incumbents from the trade association and top firms tried to co-opt the weakly structured sustainable tourism field, creating a governance framework

that left existing power structures intact, and incrementally assimilated the sustainable tourism field's interests into the tourism industry's field infrastructure.

When we examine the impact investing field, we see a different story again. As an emerging field, its institutional infrastructure is largely undeveloped. As a result there is considerable experimentation with various governance forms, negotiating different arrangements, and seeing what sticks. There is very little resistance to that experimentation, as there is a very limited institutional infrastructure to block it. Collective actors are absent; regulation is ambiguous; there is little status differentiation; there are no taken-for-granted organizational templates; and norms diverge, especially around market and social practices.

Constraints instead come from surrounding fields in which members of the impact investing field hold legitimate subject positions, as such subject positions have yet to be clearly defined and legitimated in the impact investing field itself. These constraints identify what members must not do, but do not prescribe with much certainty what should be done. Until infrastructure elements become developed (and mutually reinforcing), however, there is considerably more freedom for experimentation, but a corresponding lack of certainty around what is legitimate within the field.

IMPLICATIONS

A major aim was to draw together the ideas of institutional infrastructure, a subset of which is field governance, and use them as a basis for comparison across fields. In dealing with the rather limited literature within institutional theory for each concept we developed a definition of governance as the formal mechanisms of roles, structures, rules and standards that maintain the 'rules of the game' within a field. Institutional infrastructure we

defined as including, but wider than governance. The main elements of institutional infrastructure include collective interest organizations, regulators, informal governance bodies, field configuring events, status differentiators, organizational templates, categories or labels, and norms. We have further suggested that the institutional infrastructure of a field can be described in terms of degrees of elaboration (high, low) and coherency (unitary, competing, compartmentalized).

We then illustrated the nature of institutional infrastructure and governance, and their interrelationship through the analysis of three fields, professional service firms, forestry and impact investing. From the comparison of the governance and infrastructure of those fields, we were able to describe different configurations of institutional infrastructure and governance, focusing on their relative coherency and elaboration to identify six field conditions. In doing so, we have argued that these field conditions, based on the field's institutional infrastructure and governance, are important for understanding field dynamics, since infrastructural states affect processes of field creation, maintenance and change. Our analysis and comparison of the three fields of professional services, forestry and impact investing is a first step in showing what these differences are and the effects that they have. What becomes important are the implications of this analysis for a more general understanding of field differences and institutional change, field emergence and institutional work.

Implications for Theorizing Field Differences and Institutional Change

Some of the primary topics of the past decade, i.e., institutional entrepreneurship, institutional work and institutional logics, have often directly or indirectly centered on change at the field level. It is surprising then that the issue of what exactly has been

changing within a field and how change takes place has been relatively under-theorized. As Greenwood et al. (2011) point out, there is a lack of frameworks for understanding fields. We have discussed elements of institutional infrastructure as formal governance, collective interest organizations, informal governance, field-configuring events, status differentiators, organizational models or templates, categories and labels, and norms, which reinforce each other in established fields, but may conflict or be compartmentalized in other fields. Such elements form the basis for a classification of fields with the idea that they come together in a circumscribed set of ways. However, as institutional theory has developed a very strong emphasis on changes in, and contestation over, institutional logics (Dunn & Jones, 2010; Lounsbury, 2007; Marquis & Lounsbury, 2007; Reay & Hinings, 2009; Thornton, Jones, & Kury, 2005) as a central concern over the past decade (Thornton & Ocasio, 2008; Thornton et al., 2012), these other infrastructural elements of fields – that may enable or constrain change – have been neglected.

Our focus on institutional infrastructure in the case studies shows that logics alone cannot account for institutional dynamics. Logics are not disconnected influences which change fields automatically when they arise. They are attached to particular groups of actors, and come with their own relational channels, bases for legitimacy, and power and governance structures, and are materialized in various elements of institutional infrastructure. Our examination of the different cases suggests that logics which travel through the field's institutionalized relational channels appear to stimulate change while those that do not are more likely to be ignored or resisted. When they disrupt existing power structures or violate existing governance arrangements, they are likely to be resisted even more fiercely (Furnari, 2016). We argue that the infrastructural elements operate in concert, and thus must be considered

together. When infrastructural elements overlap and reinforce one another, they each function as separate locks on a door that acts as a barrier to institutional change. Each of the locks must be unlocked before the door can be opened and institutional change can occur.

On the other hand, the lack of reinforcing institutional infrastructure in an emerging field, while it creates considerable room for experimentation and change, limits field members' ability to define and acquire legitimacy, and thus contributes to ambiguity, and potentially, the need to draw on ill-suited infrastructure from adjacent fields. Weak infrastructure may leave a field open to colonization or cooptation (van Wijk et al., 2013), and change may be frequent, but difficult to institutionalize.

When fields feature institutional complexity, with diverging meanings, practices and prescriptions for action, institutional infrastructure may be organized in competing subfields within a field, such as the BC forestry field containing the sustainable forestry field (Zietsma & Lawrence, 2010), which is consistent with the issue fields that Hoffman (1999) identified. In these cases, different sets of institutional infrastructure exist in the field among different groups of actors and each subfield's proponents may compete vigorously for dominance in the field, as we saw, for example, with alternative dispute resolution (Rao et al., 2000). On the other hand, subfields may co-exist in fields if their jurisdictions are bounded and they themselves preserve a hierarchical ordering and governance that manages the relations among them (O'Mahoney & Bechky, 2008; Raynard, 2016).

While not comprehensive, our illustrations reveal that considering institutional infrastructure as a whole is central to the understanding of institutional dynamics, and different configurations of institutional infrastructure are associated with different patterns of institutional change in response to challenges. *This insight is critical.* While DiMaggio and Powell's (1983) idea of

structuration suggests that fields 'settle down' into established sets of actors with formal, legitimated relationships, that view is not supported by work of the past decade which suggests, at least in part, that there is less field stability than initially theorized (Heugens & Lander, 2009; Greenwood et al., 2011). All fields are subject to change, and that change is in the elements of institutional infrastructure. The characteristics of the infrastructural elements, we argue, impact the pace and scope of change (Amis, Slack, & Hinings, 2002). By developing a better understanding of the mutually reinforcing nature of institutions that prevail in fields, we can better understand when they are likely to change and when change is more likely to be symbolic, temporary resisted or blocked altogether.

While we have come some way in identifying the effects of infrastructure configurations on institutional dynamics, we are primarily laying down a framework and posing a number of issues that require further attention; there is significant work to do. A central research issue is to identify a typology of infrastructural configurations and their effects on pathways of institutional change under different conditions.

Implications in Understanding Field Emergence

Our example of impact investing, a setting of field emergence, directs attention to a broader gap in organizational institutional literature on processes of field emergence and construction (Padgett & Powell, 2012), and how this occurs in contemporary settings. Indeed, the issue of processes of *emergence* of not only markets but organizational forms, fields and practices more broadly is of broader concern in organizational studies (Padgett & Powell, 2012; see Maguire et al., 2004; Munir & Phillips, 2005; Khaire & Wadwani, 2010; Navis & Glynn, 2010). Our example shows that the characteristics of emerging fields makes them an

important area of study due to the uncertainty in the institutional order (providing scope for institutional entrepreneurs) and also how they develop given there are fewer isomorphic pressures (with the absence of shared values, established norms, or leaders to mimic) (Maguire et al., 2004). There are two main insights for institutional infrastructure. First, some existing work (Weber et al., 2008; Navis & Glynn, 2010) implicitly refers to institutional infrastructure through a consideration of categories, labels and cultural codes. This work could be extended to explicitly consider how these categories (so central to the process of emergence) are then mutually reinforced in the development of the institutional infrastructure of the field, shaping governance and field dynamics. Several studies (Weber et al., 2008; Khaire & Wadhvani, 2010; Navis & Glynn, 2010; Wry, Lounsbury, & Glynn, 2011; Gurses & Ozcan, 2015; Patvardhan et al., 2015) have focused on the development of claims and meaning around collective identities, these often being manifested in categories and cultural codes that discursively get 'filled out' and locked into place by associated evaluation criteria, and reinforced by audience recognition and repeated application via audience decision making. Furthermore, the performance of these categories and codes create new relational channels, and new practices and governance arrangements. Categories thus become part of the institutional infrastructure of a field, through a process of stakeholders debating, contesting, performing and sense-making, eventually becoming taken-for-granted (Durand & Paoletta, 2013; Grodal, Gotsopoulos, & Suarez, 2015; Gurses & Ozcan, 2015; Patvardhan et al., 2015). These categories and their enactment contribute to the institutional infrastructure. This fosters field-level identity, cohesion and also differentiation from adjacent fields (Khaire & Wadhvani, 2010; Navis & Glynn, 2010; Weber et al., 2008).

Second, fields are emerging often at the intersection of other fields, so institutional infrastructure from other fields may be

borrowed or cobbled together (in a process of bricolage), and may be inadvertently constraining or competing. Fields often emerge from disparate, heterogeneous actors using varying resources and materials (Lounsbury & Crumley, 2007) to forge innovation via new relations and networks of activities. As we note in our example of impact investing, fields often emerge in spaces between fields, or from field-to-field relations (Evans & Kay, 2008; Pache & Santos, 2010; Van Wijk et al., 2013; Furnari, 2014). What we may observe by focusing on institutional infrastructure is the power bases and resources that are drawn upon (for example from other nearby or related fields) in developing or transforming structures for interaction and eventual governance (see, for example, Furnari, 2016). It directs our attention to the sets of institutions that will enable fields to coalesce and cohere, enabling their operation. We note that the institutional infrastructure does not have to be developed collectively, but efforts and activities need to at least be aligned towards achieving a common agenda and mutually reinforcing for a field to emerge. Emerging at the intersection of these fields, we may see infrastructure borrowed, transposed, and translated from nearby fields. How it becomes mutually reinforcing amongst such diversity and possible contestation is an interesting line of inquiry in understanding field dynamics (Furnari, 2014, 2016).

Implications for Institutional Work

We recognize that the institutional infrastructure of a field is created, maintained and disrupted by organizational actors (Lawrence & Suddaby, 2006; Lawrence, Suddaby, & Leca, 2011); their lived experience is both structuring and structured by that same institutional infrastructure – the paradox of embedded agency. Recently Lawrence et al. (2011) described how institutional work involves the 'physical or mental effort aimed at affecting an institutions or set of

institutions' (2011: 53), a set of institutions being how we conceptualize the institutional infrastructure of a field.

As such, we are cautious not to privilege infrastructure over agency in our theorizing, specifically issues of intentionality, effort and power of actors (Lawrence et al., 2011) and the 'need to consider the permanent recursive and dialectical interaction' that we observe between actors and institutional infrastructure (Lawrence et al., 2011: 55). This is highlighted in our forestry field example where the interrelation between institutional work (practice work and boundary work) and periods of either stability or change provide a more nuanced account of field dynamics.

The capacity to generate change may be related to individual subject positions occupied in a field (Battilana, 2006), and we argue that those positions may be reinforced by the prevailing institutional infrastructure. The various elements of institutional infrastructure may be defended or challenged by existing or new actors. There may be actors who intentionally maintain certain pieces of infrastructure, such as certification and rating systems, or professional licensing. This may be done at a local level, yet have broader field level effects in mutually reinforcing other elements of the field. This effort may be focused or distributed, coordinated or uncoordinated, complementary or contradictory, as actors work within the field to maintain various parts of infrastructure, or when faced with external challenges. For example, related to our example of Professional Services Firms, Quack (2007) shows how in transnational law-making, legal professionals perform institutional work via practice and politicking, with each form of institutional work supporting the other.

We may also see the interaction between institutional work and institutional infrastructure in the struggle to transform, elaborate or expand infrastructure as individuals navigate the pressures of 'must do', 'must not do' and 'may do', or similarly the struggles and contestation observed in settings

of field emergence. This also connects to power bases of the institutional infrastructure and perhaps particular groups of actors who control elements of infrastructure – for example, lawyers maintaining control of professional licensing and so somewhat preserving the self-governance of the field, even with new organizational forms such as MPB. Institutional infrastructure may produce systematic bias (for example, application processes for prestigious universities), it may privilege one group over others in the production and reinforcement of field positions, and in doing so silence some groups or create barriers for others. Importantly, this consideration of institutional work, or rather agency and action, reveals how institutional infrastructure of fields is metaphorically 'alive'. It may be taken-for-granted and solidified, but it is so because of the ongoing institutional work being performed.

Our point is that institutional infrastructure is an integral part of institutional work. When creating, maintaining or transforming a field, the kinds of institutional work being done are critically about institutional infrastructure, the institutions of governance, power, legitimacy and control. While the concept of institutional work introduces an important element of agency into institutional theory it is important to go beyond the classification of types of work (Lawrence & Suddaby, 2006) to analyzing what is being worked on, i.e., institutional infrastructure.

CONCLUSION

We have observed that the institutional infrastructure of fields, its elaboration, and the way it coheres or diverges, has substantial implications for institutional change dynamics, field emergence and agency within fields. Importantly, given the dominance of institutional logics as an approach in recent years, it also provides another important lens into field change that includes actors and relations,

power structures and also the materiality of fields as embedded in governance and inter-organizational and organizational structures. We argue that taking the approach of analyzing the institutional infrastructure of fields provides a way to compare across fields, and impacts opportunities and pathways for institutional change that can sharpen our theorizing. We also argue that in comparing across fields that we are likely to find configurations of institutional infrastructural elements.

A further important area is the emergence and intersection of fields, including field overlaps and interstitial spaces between fields. Once we go beyond the movement of logics from one field to another and pay attention to the infrastructure that both underpins those logics and also has a degree of independence from them, then we have a better handle on the emergence of fields. Our argument is that the emergence and subsequent institutionalization of a field is as much about the development and establishment of the infrastructural elements as it is about logics *per se*. And in those processes of developing, establishing and legitimizing new institutional infrastructure there is a very important area of research in examining the ways in which fields intersect to allow the transporting and translating of infrastructural elements between fields.

Importantly, we have also suggested that the elements that make up institutional infrastructure give us a valuable starting point for comparing fields and establishing whether there are a limited number of configurations of these elements. But we believe that the real utility of such an approach is to theorize field differences and, as a result, understand better their role in the institutional dynamics of change. We have argued that different paths of field level change occur as a result of interactions, of logics in particular, with institutional infrastructure. Essentially there are different field level conditions, best apprehended through ideas of institutional infrastructure, that effect field-level change. An important research agenda is to systematically examine this proposition and identify

a typology of infrastructural configurations and their effects on pathways of institutional change under different conditions.

Notes

- 1 Summarized from various sources including: <http://www.findlaw.com.au/articles/407/principles-of-environmental-management.aspx>; [https://en.wikipedia.org/wiki/Ceres_\(organization\)](https://en.wikipedia.org/wiki/Ceres_(organization)); http://www.climateinstitute.org.au/verve/_resources/Climate_roundtable_joint_principles_290615.pdf; <http://www.greenpeace.org/international/en/about/our-core-values/>.
- 2 First Nations, or Canada's aboriginal peoples, became allies with ENGOs because they were attempting to gain decision-making power and resource rights over the land they claimed as their traditional territories.

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