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Understanding Strategic Planning and the Formulation and Implementation of Strategic Plans as a Way of Knowing: The Contributions of Actor-Network Theory

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UNDERSTANDING STRATEGIC PLANNING AND THE FORMULATION AND IMPLEMENTATION OF STRATEGIC PLANS AS A WAY OF KNOWING: THE CONTRIBUTIONS OF ACTOR-NETWORK THEORY

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ABSTRACT: *This article has two purposes: first, to take seriously the notion of strategic planning as a way of knowing, and second, to argue that actor-network theory provides a particularly apposite method for understanding whether and how strategic planning works in particular circumstances. Pursuit of these purposes also helps illuminate possible contributions of strategic planning to inclusive, participative, and democratic public management. The paper is illustrated with examples from the 1995 and 2007 strategic planning and subsequent implementation efforts of MetroGIS, an organization created to foster widespread sharing of geospatial information primarily among public organizatons serving the Twin Cities metropolitan area of Minnesota, USA, and further, to enhance their individual and collective effectiveness. The Metropolitan Council, the regional government, is the primary sponsor of MetroGIS, which is comprised of over 300 organizational partners across the region. Conclusions are offered about the importance of viewing and studying strategic planning as a way of knowing and as a potential vehicle for inclusive public management in a democratic society.*

[A table featuring a complete timeline of the major MetroGIS accomplishments between 1995 and 2008; the controversies, participants, processes, technologies, and artifacts involved; and the outcomes or major consequences resulting from the accomplishment is included as an online supplement on the publisher's website.]

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INTRODUCTION

In the United States, the practice of strategic planning has become nearly ubiquitous among governments at all levels and in all types of nonprofit organizations (e.g., Berman and West 1998; Poister and Streib 2005). On the one hand, this ubiquity may be simply a consequence of faddishness (Pfeffer and Sutton 2006), coercion (Radin 2006), or normative mimesis (DiMaggio and Powell 1983). On the other hand, strategic planning may also be popular because in many circumstances it seems "to work"—in the sense of helping decision makers figure out what their organizations should be doing, how, and why. In other words, strategic planning in some circumstances may provide a *way of knowing* helpful to decision makers. By "way of knowing," we mean in the first instance a *practice*, or customary way of doing something, that allows its users jointly to develop, show, or possess knowledge or understanding (adapted from *The American Heritage Dictionary* 2000 definitions of "way" and "knowing"; Schatzki, Knorr-Cetina, and Savigny 2001; Reckwitz 2002; Jarzabkowski 2005). In a broader sense, a way of knowing may also mean "a dynamic network of heterogeneous objects"—including human *and* non-human actors and ideas—in which the actors may *transform* the objects and ideas, and not just *transport* them as they move through time and across space (Feldman et al. 2006, 90; see also Latour 2005, 37–42, 223). As Nicolini, Gherardi, and Yanow (2003, 19) assert, "Knowing is therefore another way to describe the successful alignment of human and nonhuman elements ... and the human capacity to produce an effect on the world." Knowing in this sense is a product of what Law (1987) calls "heterogeneous engineering," or what Innes and Booher (1996) describe as a kind of *bricolage*. As Nicolini, Gheraradi, and Yanov (2003, 27) argue:

> From a practice perspective, the world appears to be relationally constituted, a seamless web of heterogeneous elements kept together and perpetuated by active processes of ordering and sense making. Practices—including discursive practices—are a *bricolage* of material, mental, social, and cultural resources. Not only are people active *bricoleurs*, but the world is not docile or passive. To know is to keep all these elements in alignment, given that order is not given but is always an emergent process.

Strategic planning may "work," but the question of whether and how it works, in what ways, for whom, when, and why is certainly open (e.g., Vila and Canales 2008; Giraudeau 2008). Answers to these questions are wrapped up in the definition, theory, and methodology used in the inquiry. Several business and public management scholars have argued that strategic planning does not work, or at least does not work very well (e.g., Mintzberg 1994). The critics' conclusions appear to be based on the way they define strategic planning, the methodology used to study its effectiveness, and the typical lack of attention to why the process was undertaken, what the circumstances were, who was involved, what associations developed among the actors, how the process was managed, what artifacts were produced and what

their content was, what was learned, how that learning was acted upon, and what consequences ensued.

Planning's harshest critics have defined it as consisting of no more than a fairly rigid, mechanistically applied sequence of prescribed steps often requiring huge amounts of information, power, and authority to complete; and typically divorced from processes, methods, and mechanisms of implementation, such as budgeting (e.g., Altshuler 1965; Wildavsky 1979; Mintzberg 1994, 36–66; Mintzberg, Ahlstrand, and Lampel 1998, 48–79). The critics then reach the (foregone) conclusion that little learning or political support for the results is likely to occur as a result of following prescribed steps, especially when coupled with information, power, or authority deficiencies (Boyne et al. 2004), or because of the absent link to implementation. Concerning methodology, the belief in the ineffectiveness of planning is based in part on the results of a number of early quantitative studies in which business organizations were essentially asked whether they did strategic planning (yes or no), after which usually their financial results were examined to see whether strategic planning had any observable effect on results. Findings from these studies are inconsistent or contradictory, although many actually do find positive, often complex effects of strategic planning on results (e.g., Miller and Cardinal 1994). In Mohr's (1982) terms, these are *variance* studies, not *process* studies (see also Van de Ven 2007).

Given the relatively simplistic theory and methodology guiding many of these studies, it is not surprising that few clear-cut effects one way or the other were found across studies; indeed, it would have been quite surprising if any had been found. In particular, as noted earlier, the studies have paid little attention to the larger context within which the planning occurred, who was involved in the planning and how these actors were connected, how the planning was done, what was learned, and how the resulting learning was applied and to what effect. For the most part, the actual detailed content of strategies is ignored, although general categories of strategy (e.g., defender, prospector, analyzer) have been explored and appear to be significant predictors of performance (e.g., Miles and Snow 2003; Meier et al. 2007). The studies, in other words, do not take very seriously the essentially uniform view of strategic planning's proponents who say linking the process to context is foundational; specific steps are not particularly important and information needs vary; what matters is how the process is used to promote strategic thinking, acting, learning and knowing; getting the right actors involved and affecting stakeholders in the right way are critical; getting the right strategy content is crucial; and making the links to implementation is paramount (e.g., Bryson 2004a; Ackermann, Eden, and Brown 2005; Van der Heijden 2005; Johnson, Scholes, and Whittington 2008).

Studies of strategic planning in government also report mixed results for many of the same reasons. Roberts and Wargo (1994) and Radin (2006) are among public management scholars who have questioned the effectiveness of strategic planning in government, particularly mandated strategic planning in the U. S. federal government. On the other hand, several variance studies of public strategic planning viewed broadly have found positive, though not necessarily large, effects (e.g., Bryson, Bromiley, and Jung 1990; Bryson and Bromiley 1993; Borins 1998; Boyne 2001;

Boyne and Gould-Williams 2003; Hendrick 2003; Andrews, Boyne, and Walker 2006; Meier et al. 2007; Andrews et al. 2009).

These studies of strategic planning in business and government have essentially treated strategic planning as a routine that is a fixed object, not a generative system comprised of many interacting and changeable parts. Specifically, they have focused on what Feldman and Pentland call the *ostensive* aspects of the routine, which are the abstract patterns formed out of many performances of the routine. In other words, the ostensive aspects are the "routine in principle"; "they are what enable us to say we are engaged in the 'same' performance from one iteration of the routine to another" (Feldman and Pentland 2008, 302–303). In contrast, the *performative* aspects are what we observe: "real actions, by real people, in specific times and places." Of course, the ostensive and performative aspects are linked: The ostensive parts "are the embodied understandings of the routine that we act out in specific instances . . . [T]hey guide performances, and are used to account for and refer to performances." The performative parts "create, maintain, and modify the ostensive aspects of the routine;" in other words, actual performances can change what we think of as the "routine in principle" (loc. cit.; see also Feldman and Pentland 2003; 2005).

Variance studies have treated strategic planning as essentially a black box, or at best a box with some standardized categories with their content operationalized as variables: specified process steps; strategic planners; communication processess; SWOT analyses; stakeholder analyses; strategic plans; mission, vision, goals, strategies, and actions; performance indicators; and so on. What they have *not* done is treat strategic planning as a highly variable and malleable process emerging from, and performed in, very specific circumstances and intended to change those circumstances in some way. The studies, in other words, treat as a well-defined *noun* (the ostensive) what strategic planning's proponents treat as a *verb* referring to multiple and varied performances by a multiplicity of actors (the performative).

Variance studies thus assume that strategic planning is an *intermediary*, to use Latour's (2005, 58) term, meaning the planning itself is essentially invariant and merely the transporter of a cause from inputs to outputs. Inputs, in other words, are assumed to predict outputs fairly well as long as the "transporter" is transporting. In contrast to the variance studies, we assume that the key to understanding the effectiveness (or not) of strategic planning may lie in seeing it as a complex process approach to knowing, in which organizational (or multi-organizational) stakeholders engage with one another in a series of associations and performances over time to explore and ultimately agree on and implement answers to a series of Socratic questions. These include: What might or should we be doing? How might or should we do it? What purposes or goals would be served by doing it? And how can we be sure we are doing what we agreed we ought to do, and that we are achieving the effects we want?

Our assumption is that strategic planning is a discursive practice—meaning "not only forms of saying but forms of doing" (Reckwitz 2002, 211)—and not a fixed intermediary; strategic planning is thus a highly changeable *mediator*. As Latour notes, "For mediators the situation is different: causes do not allow effects to be

deduced as they are simply offering occasions, circumstances, precedents'' for deliberation, action, and association (2005, 58). We assume, in other words, that effective strategic planning is actually a complex cognitive, behavioral, social and political practice in which thinking, acting, learning, and knowing matter, and in which some associations are reinforced, others are created, and still others are dropped in the process of formulating and implementing strategies and plans. We further assume that the more strategic planning is reduced to a rigid sequence of steps entailing essentially impossible-to-meet information, power, and authority demands, the more likely it is a foregone conclusion that studies will show it fails. We also assume, in keeping with Blackler (1993) and Blackler, Crump, and McDonald (2003), that studies that abstract strategic plans out of the context, associations, and tensions within which they are produced and must be implemented—that therefore view knowledge as codified, objectified, easily transportable, and dissociated from the subjects who produced it and must cope with it—will also show that the plans fail. To repeat a point made earlier, as intermediaries, strategic planning and strategic plans are narrowly proscribed nouns; as mediators, they are broadly inclusive verbs that open doors on knowing. As Weick (1995, 188) notes, ''Verbs capture that action that lays down the path for sensemaking.'' Finally, we assume that terms like process steps, planners, stakeholder analyses, strategic plans, mission, vision, goals, strategies, actions, and performance indicators are all relevant to any study of strategic planning in practice, but not as rigidly defined terms. Instead, we seek to understand how they are *performed* and what that might mean for understanding strategic planning as a way of knowing that is consequential for organizational performance.

This is not to say that we assume strategic planning and strategic plans will be successful if a richer, more complex approach is taken. Indeed, we agree with Bryson and Roering (1989) that ordinarily one should expect that strategic planning efforts will fail, since so much has to be in place for them to succeed: supportive sponsors in positions of power and authority, skilled process champions, skilled strategic planning teams, a driving need, viable strategies, and a coalition large enough and strong enough to adopt proposed changes and protect them during implementation. Without development of some reasonable amount of shared knowledge and understanding and some reasonably shared commitment to mission, goals, strategies, and actions among the network of actors—that is, without a way of knowing these things in some reasonably agreed way—it seems almost inconceivable that strategic planning could succeed. In addition, given that strategic planning typically is meant to change something—specifically, ''associations'' of some kind, to use Latour's term (2005, 5, 8)—and given that resistance to change is frequent and often intense—what Tryggestad (2005, 41) calls ''anti-plans''—the chances of failure likely will be substantial, as Machiavelli pointed out long ago. We are talking about *bricolage* on a substantial scale, and no one should assume it will be easy to construct the coalition needed to support and implement a reasonably shared and agreed-upon mission, goals, strategies, and actions. In other words—and at the risk of sounding tautological—strategic planning processes must be designed and assembled to cope with multiple possible sources of failure, or they are likely to fail.

To summarize, the paper thus has two purposes: first, to explore the idea of strategic planning as a way of knowing, and second, to argue that actor-network theory—or what Latour (2005) calls "the sociology of associations"—provides a particularly apposite method for understanding how and whether strategic planning works in particular circumstances. The rest of this paper is organized into the following sections: First, we present an overview of actor-network theory (ANT) and present the case for its suitability as a method for studying the formulation and implementation of strategies and strategic plans. The presentation builds on the above discussion of ways of knowing from a practice perspective. Second, we illustrate the applicability of ANT as a methodology for studying strategic planning as a way of knowing by using the example of MetroGIS, an award-winning collaborative, inclusive, participative network of over 300 government, business, and nonprofit organizations in the Minneapolis-Saint Paul, Minnesota, metropolitan area that has created a virtual geographic information systems initiative under the auspices of the Metropolitan Council, the regional government (www.metrogis.org). Finally, we offer a number of conclusions about the importance of viewing and studying strategic planning as a way of knowing and as a potential vehicle for inclusive public management in a democratic society.

ACTOR-NETWORK THEORY

Methods should be equal to the task of helping answer the questions asked. We want to know what it might mean to view strategic planning and the formulation and implementation of strategic plans as a way of knowing involving various kinds of actors and materials and intended to improve performance. In other words, we want to know more about whether, how, and under what circumstances strategic planning is able to do what its proponents assert it is able to do, at least at its best—namely, promote strategic thinking, acting, and learning; improve decision making; and improve organizational performance (Bryson 2004a; Ackermann, Eden, and Brown 2005; Johnson, Scholes, and Whittington 2008).

In this section, we will explore the aptness of ANT for the study of strategic planning. Latour (2005) offers the best introduction to ANT and contrasts ANT, or the "sociology of associations," with the "sociology of the social." (Note: In this section all Latour references are to Latour 2005; see also Latour 1987; Law and Hasard 1999; Czarniawska and Hernes 2005; a relatively complete list of ANT references may be found at http://www.lancs.ac.uk/fass/centres/css/ant/antres.htm). Latour asserts that ANT takes as its challenge accounting for new associations—i.e., "the *tracing of associations*" (5, italics in original)—without *a priori* assuming any fixity to social aggregations, which he says the "sociology of the social" does. In other words, the "social" (e.g., existing and new networks, communication patterns, stakeholder relations, coalitions, client groupings) is what must be explained, not assumed. Further, tracing associations also means accounting for connections among "things that are not themselves social" (loc. cit.); for example, plans, decision-making approaches, computer networks, and worksites. While Latour (2005) actually is rather vague on what counts as an association, others

(typically not writing from an ANT perspective) have explored the issue of the various meanings of what might count as an association—including a causal connection—in single cases (e.g., Barzelay and Campbell 2003; George and Bennett 2005; Van de Ven 2007). Thus "association" includes far more than, for example, a communication link between nodes in a network; associations may also embody shared understandings, affective responses, identity-based or -forming linkages, agreements, commitments, resource flows, and a host of other possible connections, including causal connections. Note as well that associations may be stronger or weaker, and emergent, ongoing, or ending. In terms of methodology, ANT thus: (1) focuses on performances; (2) includes associations or connections with non-human elements or aspects of the situation; and (3) helps account for how the ostensive aspects of any set of associations are produced, become stabilized and legitimized, or change, through strengthening or weakening associations, respectively (Feldman and Pentland 2008, 306). ANT does this by providing a set of categories and a methodology for examining associations. In the next section we introduce the categories and methodology, and in the following one we consider the appropriateness of ANT for understanding and evaluating strategic planning as a way of knowing. We then illustrate the application of ANT's categories and methodology to the MetroGIS case.

ANT's Approach to Examining, Understanding, and Explaining Associations

In order to trace associations ANT lets the actors do the acting; that is, it lets them "re-associate and reassemble the social" (7). As Latour asserts, "The task of defining and ordering the social should be left to the actors themselves" (23). ANT therefore is a process methodology that assumes actors' knowing is certainly implicit and often explicit.

More broadly, Latour asserts that sociology has three main tasks or duties when it comes to understanding, explaining, evaluating, and helping to inform how we humans might best live together (adapted from 16, 160). The first task is to address the full range of possible controversies involved in living together without restricting the controversies in advance. The second is showing how those controversies are or may be settled (or in Latour's language, stabilized), and how those settlements are or may be maintained. The final task is to define the procedures for the composition (reassembly) of the collective by being interesting and useful to those who have been the object of study.

As a method, Latour (22) argues that an ANT study should focus on five (he believes exhaustive) categories of controversies. They include the nature of: groups and how they are defined; action and its manifold causes; agents, including human and non-human actors; facts versus "matters of concern"; and studies showing how the social sciences can be said to be empirical.

ANT looks at many different ways of identifying *groups*, because actors themselves identify groups in a variety of ways. ANT studies incorporate a wide range of actors, many, or even most of which, can be mediators, and not intermediaries.

This means that in each course of *action* a great variety of agents may change, divert or displace the original intent; and the precise origin of any action may be unclear—hence, the term "actor-network" (46). Or as Latour (202) says, "Stretch any interaction and, sure enough, it becomes an actor-network." One type of group is a "macro actor," to use Czarniawska and Hernes' (2005) language, which is built up of interacting actor-networks and is seen as an actor; any formal organization would be an example, but there are many others. ANT studies actually become enquiries into practical metaphysics—defining the basic structure of the actors' world from their perspective (50).

In ANT *agents* can be both human and non-human; indeed, "any thing that does modify a state of affairs by making a difference is an actor" (71). Actors may be key individuals and groups, but may also include things or objects (such as the Internet or maps) that affect the course of action. ANT studies refer to the variety of human and non-human actors as "actants" (54–55).

An important ANT premise is that power is a process result, not an explanation. In other words, "Power is the final result of a process and not a reservoir, a stock, or a capital that will automatically provide an explanation. Power and domination have to be produced, made up, composed. Asymmetries exist, yes, but where do they come from and what are they made out of?" (64). This means that distributions of power on any issue can change as associations change. Actors can influence the flow of action in numerous ways and an ANT study would pay attention to this.

Another ANT focus is in what counts as a *matter of fact* and what is a *matter of concern*. Analysts tend to think that facts about the physical world are "hard" and not constructed or artificial; while social life is "soft" and often rather artificially and arbitrarily constructed. On the other hand, ANT studies grew out of the sociology of science and have demonstrated rather conclusively that the physical sciences "offer the most extreme cases of complete *artificiality* and complete objectivity moving in parallel" (89, italics in original). In the "construction of facts . . . artificiality and reality march in step" (90). As Fleck (1983) asserts, "facts are about the least primitive, the most complex, the most elaborated, and the most collective makeup there is" (quoted on 112). This is clearly not to say that facts are "made up," but instead to note the extensive associations of agents and actions wrapped up in discovering, determining, defining, or concluding that something is a fact. Official street maps, for example, which nearly everyone presumes to be factual, are a product of the manifold workings of government legislation, surveyors, cartographers, GPS technology, city planners, property law, lawyers, and so on. Matters of concern, on the other hand, are more open; they are not yet concluded or stabilized. (Latour would caution that both matters of fact and matters of concerns are "matters"; and that in the final analysis even matters of fact, at least in theory, should be recognized as matters of concern. In other words, what we generally think of as matters of fact are hardly ever wholly, permanently and irrevocably stabilized as facts.)

Finally, Latour argues that all sociological accounts are *risky accounts* and prone to fail because they cannot put aside either their artificiality or their claims to accuracy and truthfulness (133). A key point is that artificiality and accuracy are not contradictory; both are required (124).

The Appropriateness of ANT for Understanding Strategic Planning As a Way of Knowing

ANT appears far more able to detect effects of strategic planning activities in relation to who and what is involved, how, why, and with what results than the blunt-instrument variance methods noted above. By allowing the actors to act and by focusing on the associations they trace, ANT appears to be particularly able to clarify in practice what it means to call strategic planning a way of knowing defined as "a network of heterogeneous objects" (Feldman et al. 2006, 90) that is "relationally constituted" and "kept together by active processes of ordering and sense making, [where] to know is to keep all these elements in alignment, given that order is not given but is always an emergent process (Nicolini, Gherardi, and Yanov 2003, 27). At the same time, by focusing on actors and the associations they trace (or not) ANT is well-suited to the task of discerning how and to what extent strategic planning in practice is inclusive, participatory, and democratic.

In terms of the appropriateness of ANT as a method for studying strategic planning in practice, consider how strategic planning is described by one of its proponents (Bryson 2004a, 27–28):

> [Strategic planning] is meant to help public and nonprofit organizations (and communities) create public value through meeting their mandates and fulfilling their missions. In order to do so it must produce fundamental decisions and actions that shape and guide what the organization is, what it does, and why it does it. Producing those decisions requires an interconnected set of activities that organize participation, create ideas for strategic action, build a winning coalition, and implement strategies.

From an ANT perspective, this view of strategic planning implies it is a practice concerned with understanding, creating, sustaining, changing, or ending associations among aspects of the general and specific contexts for action, leaders and other stakeholders, various kinds of analyses and their results, artifacts (e.g., legislation, articles of incorporation, studies, strategy maps, strategic plans, resolutions, communication pieces, reports, etc.), "fundamental decisions," "fundamental actions," strategies-in-practice, resource flows, performance results, and so on. An ANT study would trace these associations to understand what exactly happened and what the results were. A carefully conducted ANT study could account for the associations that are formed (or not) to organize participation, create ideas for action, build a coalition, and implement strategies. It could assess what the effects of those associations are on inclusion and participation, and on the more general results. An ANT study would examine the specific performances of people involved in strategic planning, but would also attend to how the ostensive aspects of strategic planning, from the viewpoints of various actors, affect the performance and, in turn, how the performance sustains or changes the actors' views of the ostensive aspects of strategic planning.

Said differently, the main tasks Latour ascribes to sociology are also the tasks of strategic planning, although in the case of strategic planning these tasks are more

narrowly proscribed and usually referred to as: articulating and addressing strategic issues, figuring out how to address them effectively over time, and providing accounts along the way that help people identify, focus on, and act effectively on organizational mission, goals, strategies, and actions. ANT categories and methods are thus well situated to reveal how effective a strategic planning endeavor was in examining the relevant controversies, helping settle them, creating enduring solutions, and generating learning for the actors involved. Along the way, ANT methodology can also illuminate in what ways a strategic planning effort was or was not inclusive, participative, and/or democratic, and what the effects were. ANT studies ultimately could lead to generalizations about strategic planning in practice viewed ostensively that are more useful than most variance studies.

We now discuss briefly the five controversies and how an ANT study of strategic planning would examine them. Recall that the controversies include the nature of: groups and how they are defined; action and its manifold causes; agents, including human and non-human actors; facts versus "matters of concern"; and studies showing how the social sciences can be said to be empirical.

An ANT study would examine the variety of ways in which groups are identified, including through actors' use of stakeholder analyses in which groups are named and their relationships and powers explored (Bryson 2004b). Stakeholder analysis is typically an ongoing set of sometimes formal, but mostly informal, activities whose purpose is to understand who needs to be taken into account, what they want, what might be needed from them, and how best to work with them. Stakeholder groups are typically not taken as *given*, but as *performed*; that is, they are formed out of "an on-going process made up of uncertain, fragile, controversial, and ever-shifting ties" (Latour 2005, 28). County boards and city councils, for example, are often changing through elections. In addition, those involved in strategic planning typically are also aware of the difference between the ostensive—abstract, more generalized—features of stakeholder groups, such as county boards, and the more specific, performative aspects of a particular county board. Stakeholders thus are likely not to be the object of an ostensive definition, but rather of a performative definition.

In terms of action and its manifold causes, an ANT study would locate anything specifically labeled as strategic planning within the broader actor-networks that contain it, while also attending to how the specific process actually unfolds. In terms of agents, an ANT study would examine the various human actors involved, such as process sponsors, champions, facilitators, strategic planning teams, and the variety of other stakeholders. An ANT study would also examine the role of non-human agents, such as mission and vision statements, strategic issue definitions, strategy maps, strategic plans, formal charters or articles of incorporation, and conceivably even such things as state constitutions, which affect state, regional and local government's formal powers and jurisdictions.

An ANT study would examine what actors involved in strategic planning take to be facts, and also would explore how they approach matters of concern that eventually may be translated essentially into matters of fact, e.g., work programs, adopted plans, policies, budgets, accountability systems, etc. Actually, matters of

concern and how they are dealt with would appear to encompass much of any strategic planning process, and therefore would occupy a significant fraction of any ANT study. These matters of concern include: Who is a stakeholder? How inclusive, and in what ways, should the process be? How should the process be organized? What must be taken as given, and what is open to discussion? What are our real mandates? What should our mission be? What strategic issues do we face? What strategies should we pursue to address them? How should these strategies be implemented? How should performance be judged? At least some of these matters must become "stabilized" as essentially matters of fact for the people involved if the organization is to succeed. As Mintzberg (1994, 252) notes, "Organizations function on the basis of commitment and mindset; in other words, it is determined and inspired people who get things done." An ANT study of strategic planning in practice would identify the matters of concern in the case and explore what happened to them, and in particular would attend to what got stabilized as a matter of fact.

In the last of the controversies, we confront the notion that an ANT (or any other) study of strategic planning would be a risky account, in the sense that its claims to truthfulness and accuracy will always be open to question. The study inevitably will be somewhat artificial in a variety of senses: it will be human-made, obviously; but more importantly, of necessity it will be partly fictional, even as it strives to be non-fictional. In short, it will be a contrivance trying to be truthful and accurate, but that artificiality and accuracy are not contradictory; both are required. (Latour 2005, 124). In an intriguing parallel, the object of study will also include its own risky accounts: Strategic plans and all of the documents that go into their preparation (e.g., stakeholder analyses, situation analyses, scenarios, strategic issue statements, draft strategies, etc.) are also risky accounts. They are artificial, but also aspire to accuracy and truthfulness. An ANT study would need to explore how these various documents and plans were constructed and what their utility and truth status were from the standpoint of the various actors involved.

To summarize, an ANT study would examine how in a particular strategic planning case the controversies were settled (stabilized) or not—meaning which actors were identified and involved, whether controversies (strategic issues) were articulated in such a way that they could be addressed effectively, whether ways were found to address them effectively over time, and whether accounts along the way were provided that helped people identify, focus on, and act effectively on organizational mission, goals, strategies, and actions. The presumption is that if the controversies are not stabilized appropriately—if treaties or settlements of some sort are not reached about mission, goals, strategies and implementing actions—things will fall apart, at least as far as the strategic planning endeavor is concerned (Bryson and Roering 1989). The "answers" (understandings, agreements, commitments) to the issues addressed must be "collectively stated, stabilized, and revised" (138) if the strategic planning performance is to have much effect in practice. An ANT study would explore in detail how and to what extent they were stabilized and to what effect.

We believe that ANT methodology offers a number of advantages for studying strategic planning and the formulation and implementation of strategic plans. First, ANT researchers are coached to follow the actors, which must be done to really

understand what happens in strategic planning and what its consequences are. In other words, what happens has to be accounted for step-by-step and association by association through the performances of actors, and not presumed based on reified (and perhaps quite wrong) presumptions about strategic planning viewed ostensively. Second, following the actors also helps reveal how inclusive, participative, and/or democratic the process was. Third, ANT encourages researchers to treat as real the possible associations among ideas and their proposers, as when strategic options are being discussed; and also as real what is actually decided regarding which options to pursue. In other words, ANT treats as real both matters of concern (issues, possibilities) and matters of fact (agreed actions, decisions). Fourth, ANT is one of the only theories available that would allow the various artifacts produced during a strategic planning (e.g., stakeholder and SWOT analyses, issue papers, strategy maps, draft plans, adopted plans) to be taken seriously as mediators and actors. In other words, typically in any strategic planning process many artifacts are produced as a way of fostering deliberation, action, and association; many of these artifacts can make a big difference, meaning, as Latour would argue, they become actors. Fifth, ANT helps reveal in great detail the extent to which strategies are both *emergent*, growing out of prior associations, and *deliberate*, resulting from new associations (Mintzberg 1994). Sixth, ANT alerts the researcher to just how much work can or does go into strategic planning and into creating and/or maintaining an organization it is meant to help, since the associations involved must be created and constantly maintained or they will dissolve. Seventh, and related, ANT methods help account for how the ostensive aspects of any set of associations are produced, become stabilized and legitimized, or change, through strengthening or weakening associations, respectively (Feldman and Pentland 2008, 306). Finally, Latour argues that ANT-inspired approaches should seek to define or help identify good procedures for assembling or composing the collective by rendering itself interesting to those who have been the object of study. Such studies thus have something very important to contribute to strategic planning *as a field*, as it, too, seeks to identify the best approaches for assembling or composing the collective by engaging those who are affected, involved, or have some partial responsibility to act effectively on organizational mission, goals, strategies, and actions.

MetroGIS AS AN EXAMPLE[1]

We illustrate the promise of ANT studies of strategic planning using the example of the creation and continued operation of MetroGIS, the regional geographic information system initiative in the Twin Cities area of Minnesota (http://www.metrogis.org). We hasten to add, however, that the illustration does not constitute a full study using ANT methods to trace the associations involved in forming and maintaining MetroGIS, nor does it show clearly what worked and what did not in building the complex collaboration. Instead, the illustration represents an after-the-fact account of the development of MetroGIS informed by an ANT perspective intended to demonstrate the potential usefulness of ANT as a methodology for examining, understanding, and explaining what strategic planning might mean in practice as a

way of knowing. The data on which this illustration is based come from several sources: archival research, including a review of materials on the MetroGIS website (www.metrogis.org); a brief, unpublished written history of MetroGIS (Delmont 2008); individual interviews with ten persons involved in MetroGIS's founding and subsequent development; one group interview with five knowledgeable MetroGIS actors; and participant observation by the lead author in the build-up to, facilitation of, and follow-up to both major MetroGIS strategic planning efforts. The example is presented first, followed by a more thorough discussion in a subsequent section of particular aspects of the MetroGIS case in light of ANT methodology, including the importance of strategy mapping, power as an effect as much as a cause, and the creation of "macro actors" (Czarniawska and Hernes 2005).

MetroGIS was initiated with conversations beginning in 1995 and has grown into an award-winning regional geographic information system (GIS) initiative serving the seven-county Minneapolis-Saint Paul metropolitan area. The Metropolitan Council (MC), the regional government serving the metropolitan area and a primary beneficiary of MetroGIS' efforts, has accepted the role of primary sponsor. In this capacity, the MC has provided the majority of staff support and project funding for MetroGIS' efforts to foster collaboration. The MC also has assumed several leadership roles, along with other key stakeholders, in support of regional solutions to shared geospatial needs.

MetroGIS itself is perhaps most usefully viewed as a voluntary collaboration—and what interviewees call a "virtual organization"—involving over 300 local and regional government units, partners in the state and federal governments, and academic institutions, nonprofit organizations, and businesses. MetroGIS provides a regional forum to promote and facilitate widespread sharing of geospatial data. The associations that have built and maintained MetroGIS have created a "macro actor" (Czarniawska and Hernes 2005). The organization is a clear example of "collaborative planning" by multiple units of government, nonprofits, and businesses (Healey 2006) and of "inclusive management" (Feldman and Khademian 2000; 2007) characterized by high levels of inclusion, democratic and consensus-based decision-making processes, and varying levels of participation depending on the situation.

Important associations in the MetroGIS case are traced in three ways. First, Table 1 lists Metro GIS's major accomplishments. An elaborated version of Table 1 is available online on the publisher's website. That table lists: (1) MetroGIS's major accomplishments; (2) the controversies that were addressed and settled that led to the accomplishments; (3) who was involved in addressing and/or settling the controversies; (4) the process used to produce the accomplishment; (5) the role of technology as an actant; (5) important artifacts; and (6) outcomes of major consequences resulting from the accomplishment. Second, the associations between and among the accomplishments are traced in three figures, each corresponding to a different period in MetroGIS's development, as identified in the official history of MetroGIS (http://www.metrogis.org/about/history/index.shtml). And third, in the next three subsections we present a brief explanation (Latour would say a "risky account") of how MetroGIS came to

TABLE 1
Timeline of Major MetroGIS Accomplishments, 1995–2008*

1995	*1996*	*1997*	*1998*	*1999*
• Obtained endorsement from key stakeholders of idea of pursuing a regional GIS and acceptance for the Metropolitan Council to lead the initiative. MetroGIS created as a result. • Hosted Strategic Planning Forum – identified four key operational themes needed to achieve wide-spread data sharing : Data access, Data content, Data standards, and Governance	• Defined regional mission and goals; guiding principles specify partnership values • Defined core services/ functions for regional collaborative • Metropolitan Council endorsed MetroGIS mission statement and accepted role as primary sponsor • Created governance and organizational structure with advising, coordinating, and policy making functions among elected officials, managers and technologists	• Completed SI #3 – Defined and obtained unanimous Policy Board approval of thirteen common (or shared) information needs of key stakeholders • Reached agreement with The Lawrence Group (TLG) to share Regional Street Centerline Dataset with government and academic users at no cost	• Completed SI #4 – Implemented Version 1 of DataFinder, a web-based data search and retrieval tool • Completed Fair Share Financial Model (FSFM) and Organizational Structure Study. Both affirmed need for MetroGIS partnership services. FSFM concluded a subscription fee to foster the MetroGIS collaboration function was not viable, meaning it was up to the Met Council to foster collaboration	• Demonstrated it was possible to create a region-wide, parcel-level data set by implementing Version 1 of Regional Parcel Dataset; project involved assembly of data on 1 million-plus parcels from 7 counties • Implemented Version 1 of Regional Land Cover Dataset

(*Continued*)

TABLE 1
Continued

1995	*1996*	*1997*	*1998*	*1999*
• Created Coordinating Committee to act on the vision for data sharing on a regional scale	• Defined five Strategic Initiatives (SI), with work on two completed: SI #1 – Key stakeholder endorsements of MetroGIS purpose secured; SI #2 – Executed first-generation data sharing agreement with counties, a cost-sharing agreement to catalyze sharing of parcel data • Catalyzed formation of several county User Groups for intra-county coordination		• Benefits Study documents that Metro-GIS's collaborative efforts were having positive impacts both for improved data access and quality and, as important, catalyzing knowledge sharing • Commendation from the MN Governor's Council on Geographic Information (GCGI) for MetroGIS Endorsed Regional Street Centerline Dataset • Implemented Regional City-County Boundaries Dataset	
2000	*2001*	*2002*	*2003*	*2004*
• Completed SI #5 – Produced first comprehensive Business Plan (2000–2003);	• Second-Generation Data Sharing Agreement executed; $75,000 in incentives	• Added the Café functionality to DataFinder, providing web-based custom	• Adopted third-generation Data Sharing Agreements. The Met Council incentive	• Designation by Open Geospatial Consortium (OGC) as top U.S. example of local

FSFM provided foundation for plan • National GeoData Alliance (GDA) recognizes MetroGIS's collaboration model as a valuable contribution to realizing the vision of the National Spatial Data Infrastructure (NSDI) Federal-level initiative • GDA invites Hennepin Co. Commissioner Randy Johnson and Staff Coordinator Randall Johnson to participate in GDA initiative to define an organizational structure for the NSDI	provided by Met Council • Awarded prize grant in the ESRI/National Geographic Society International Geographic Network Challenge (open to all users of ESRI software worldwide)	solutions to stakeholder data needs (meaning the ability to clip and bundle data for user-defined areas) • Implemented MetroGIS Performance Measurement Plan • Completed update of Business Plan for 2003–2005 period (a continuation of SI #5) • Implemented Version 1 of Regional Census Geography Dataset • Awarded URISA's (urban and regional information systems association) ESIG Award (exemplary systems in government) for MetroGIS's one-stop data shop and other collaborative initiatives • Implemented Version 2 of the Regional Parcel Dataset	payment was reduced to $50,000, with the understanding that data quality and refinement would result • Implemented an Internet based Mailing Label Application that utilized regional parcel and street centerline datasets • Implemented Regional Socioeconomic Data Resources website	and regional data distribution • Recognition by Ian Masser (an international authority) in a publication for ERSI (a world leader in providing GIS technology) as best North American example of regional data collaboration agency

(*Continued*)

TABLE 1
Continued

2000	*2001*	*2002*	*2003*	*2004*
		• Received Implementation Team (I-Team) Designation by Federal Office of Management and Budget recognizing MetroGIS use of organizational and financial incentives to achieve public and private collaboration • Awarded Planning Merit Award from MN Chapter of the American Planning Association for the Regional Planned Land Use Dataset		

2005	*2006*	*2007*	*2008*
• Initiated process to define partnership opportunities with non-government stakeholders	• Received affirmation from the Metropolitan Council that MetroGIS's existence benefits the Council	• Adopted 2008–2011 Business Plan	• Defined appropriate roles for MetroGIS regarding the fostering of solutions to shared application needs

	• MetroGIS hosted Geospatial Technology Forum to identify emerging GIS technologies for next 3–5 year period	• Work begins on defining examples of specific shared applications in response to perceived user needs • Work begins in earnest to explore potential for partnering with private sector to address shared information needs

*An elaborated version of this table will be found as an online supplement on the publisher's website. That table includes the timeline of the major MetroGIS accomplishments between 1995 and 2008; the controversies, participants, processes, technologies, and artifacts involved; and the outcomes or major consequences resulting from the accomplishment.

be, the controversies that were faced over the course of its history that led to the accomplishments, and the accomplishments themselves. The narrative, in other words, represents an attempt to tell the story the traced associations have to tell. In the next major section we discuss further what viewing the MetroGIS example through an ANT lens has to contribute to understanding and explaining strategic planning and the formulation and implementation of strategic plans as a way of knowing.

MetroGIS Phase 1 – Strategic Plan Formulation and Initial Implementation – Early 1995–April 1996

The idea of establishing a regional GIS to serve the Twin Cities metropolitan area was suggested in 1995 by staffers working for the Metropolitan Council (MC), the regional government. The idea grew out of frustration local government leaders and planners were experiencing as a result of what they believed were faulty MC population, employment, and land use data and projections. See Figure 1 for a tracing of key associations among accomplishments during this period. (Note that the arrows in the figure and in Figures 2 and 3 to follow do not indicate causes, but instead represent often complex ''occasions, circumstances, precedents'' for deliberation, action, and association [Latour 2005, 58] around controversies that lead from one accomplishment to the next.) The local governments were required to develop land use and other plans in accord with regional plans and based in part on making use of MC data. The difficulty was that the MC made use of a population and employment allocation model based on regional or macro-level data that did not take into account local land uses; in other words, the allocations took no account of local capacities to absorb the allocations. As early as 1994 the MC GIS Unit recognized the need for parcel-level data that would more accurately indicate local potential for population and employment growth, but had no way to acquire or produce it. Meanwhile, the potential of GIS technology and the relatively new Internet offered some promise of a fairly quick, accurate, and accessible metro-wide system of collating land use and other kinds of data.

Rick Gelbmann, head of the MC GIS Unit, convinced Richard Johnson, the MC's deputy regional administrator, that they should convince the Council members (the formal MC policy makers) that the MC should do two things: (1) authorize an exploration of what the MC should do about fostering creation of a regional GIS system that included parcel data; and (2) hire someone to help with the exploration. Randall Johnson (no relation), a planner with suburban Shoreview who had experience with unrealistic MC data and projections, was hired. Since the counties had most of the necessary data, although not in standardized, normalized form, Johnson received permission from the MC to explore with the seven regional counties what incentives would be needed: (1) to establish a means by which the MC would have ongoing access to county-produced parcel data; and (2) to gain county approval to participate in the development and use of standards to normalize parcel data across the seven counties. These discussions lead to a substantially more ambitious

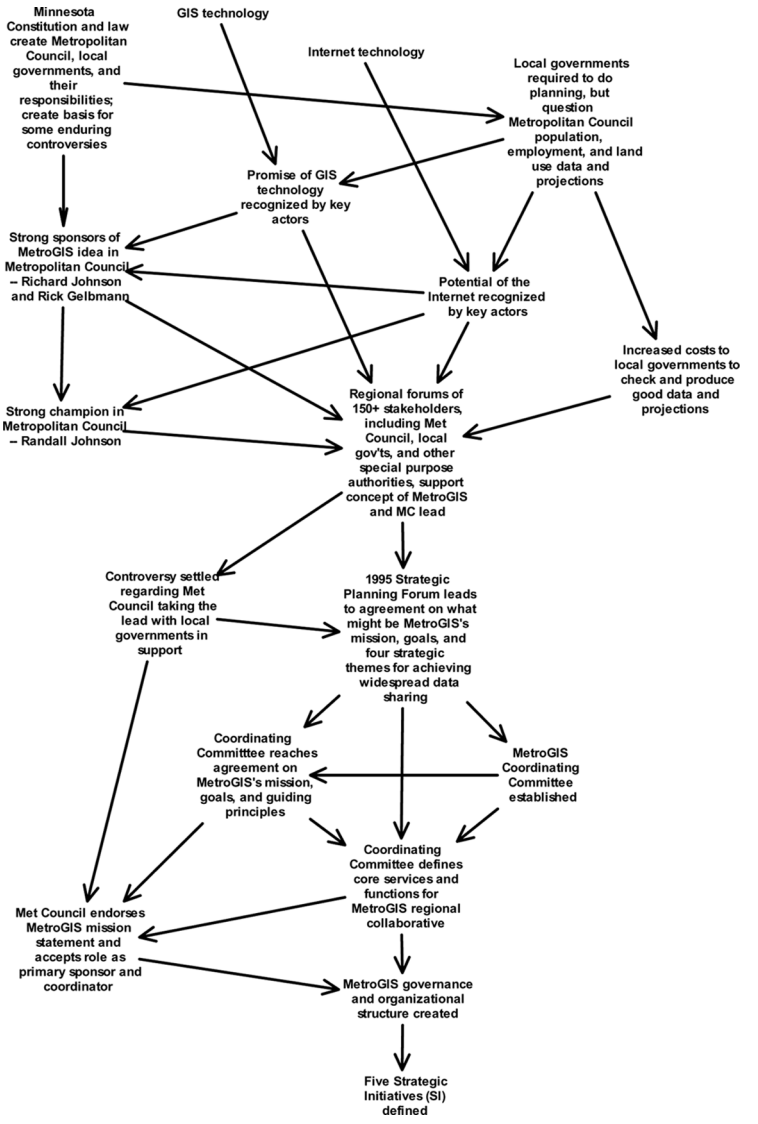

Figure 1. MetroGIS Phase 1 – Strategic Plan Formulation and Initial Implementation – Early 1995–April 1996.

concept: broadening the stakeholders to include all local and other governmental units that served the metropolitan area and collaborating to address a host of shared geospatial information needs beyond parcel data. The MC was willing to put $1.1 million on the table to gain access to data produced by others in a form it could readily use.

Randall Johnson took the lead on organizing a series of formal and informal discussions and two major forums of 75-plus stakeholders each to explore the issue of whether to pursue a regional GIS system and whether the MC should lead the initiative. Each forum involved creating and/or maintaining and reinforcing existing relationships among actors. A general consensus emerged from these discussions (Latour would say stabilized) for the idea that there should be a regional GIS system and the MC should take the lead in this case—although tension continued to exist between the MC and local governments on other issues, which is partly a consequence of the way regional and local government are organized constitutionally and legislatively in Minnesota.

The MC officially accepted responsibility for sponsoring the effort. What came to be called the ''definition and design phase''—or Implementation Phase I, as it was called—began in December 1995 and ran through April 1996. The key event in this phase was a strategy mapping exercise called the Strategic Planning Forum, which was held December 14, 1995. The exercise involved an intentionally assembled group of 22 invited representatives of government, nonprofit, and business interests, including the National Spatial Data Infrastructure Framework coordinator. Strategy maps of the sort the group developed are word-and-arrow diagrams in which the arrows indicate that some activity may cause, lead to, or result in (in ANT terms, be associated with) something else. The specific methodology will be found in Bryson et al. (2004), including a set of sense making and ordering principles that help align people's thinking about mission, goals, strategy, and implementation. The maps typically involve 100 or more ideas linked by arrows; in this case, upwards of 250 ideas were created and linked by the group over the course of the day. The group then categorized specific ideas that they thought captured important elements of a possible mission, goals, strategic issues or themes, and some key actions. Participants ultimately agreed on statements of intent (including basic elements of the mission and goals), and strategic issues (matters of concern) to be addressed over the next four months. The event also resulted in creation of a Coordinating Committee to help guide subsequent efforts. Participants also discussed an initial set of ''guiding principles'' to foster successful collaboration.

Four advisory teams (data access, data content, policy, and data standards) were created by the Coordinating Committee in March and April 1996 to help it address the many issues and needs (matters of concern) identified at the Strategic Planning Retreat. These needs were consolidated by the Committee into five strategic projects and assigned to the advisory teams for recommended courses of actions. (These advisory teams are no longer active.)

In April 1996, a formal mission statement, goals, guiding principles; set of core services and functions; five strategic projects (called Strategic Initiatives); and an initial organizational structure were created and agreed by key stakeholders, including the Coordinating Committee and the MC. In other words, what had been several strategic matters of concern involving direction, organization, and governance evolved into matters of fact. The original, officially approved mission of MetroGIS grew directly out of (meaning much of the language was taken directly from) the strategy mapping exercise. The original mission was: ''To provide an ongoing,

stakeholder-governed, metro-wide mechanism through which participants easily and equitably share geographically referenced data that are accurate, current, secure, of common benefit and readily usable. The desired outcomes of MetroGIS include: improved participant operations; reduced costs; and support for cross-jurisdictional decision making'' (www.metrogis.org/about/history/mission.shtml).

Many interviewees commented on the importance of the guiding principles for developing and sustaining the organization. Many noted the principles are frequently referred to, and are clearly—even *emphatically*—inclusive, participatory, and democratic. They also emphasize the importance of tapping and creating shared knowledge and understanding. The principles are as follows (slightly modified in recent years from the original) (http://www.metrogis.org/about/index.shtml#principles):

- Pursue collaborative, efficient solutions of greatest importance to the region when choosing among options;
- Ensure that actively involved policy makers set policy direction;
- Pursue comprehensive and sustainable solutions that coordinate and leverage resources: i.e., build once, make available for use by many;
- Leverage the Internet and related technology capabilities;
- Value knowledge sharing as highly as data sharing;
- Seek cross-sector (public, non-profit, academic, utility, and for-profit) solutions, including data enhancements from many sources to serve shared geographic information needs when in the public interest;
- Pursue interoperability with jurisdictions that adjoin the Twin Cities metropolitan area, seeking consistency with standards endorsed by state and national authorities;
- Acknowledge that the term ''stakeholder'' has multiple participation characteristics: contributor of resources, consumer of the services, active knowledge sharer, potential future contributor, potential future user, continuous participant, and infrequent participant;
- Acknowledge that funding is not the only way to contribute: data, equipment, and people are also valuable partnership assets;
- Rely upon voluntary compliance for all aspects of participation;
- Rely upon a consensus-based process for making decisions critical to sustainability;
- Ensure that all relevant and affected perspectives are involved in the exploration of needs and options;
- Enlist champions with diverse perspectives when implementing policies and carrying out activities.

The five Strategic Initiatives (SI) involved:

- Obtaining formal endorsement from key stakeholder organizations of the MetroGIS principles and expectations (SI #1);
- Executing and administering data sharing agreements with key partners (SI #2);
- Identifying and addressing common priority information needs among the stakeholders (SI #3);

- Implementing an Internet-based data search and retrieval tool, now known as MetroGIS DataFinder (SI #4);
- Identifying a sustainable long-term financing and organizational structure (SI #5).

The original strategy maps may be accessed at: http://www.metrogis.org/about/history/concept_mapping.pdf. According to the first and only MetroGIS director, Randall Johnson, these maps guided MetroGIS from their creation until the next strategy mapping exercise in February 2007. Johnson, for example, kept copies of the maps on his office wall throughout this period and referred to them frequently personally and in meetings (Randall Johnson 2006; 2007, personal communications). The maps, therefore, made a difference—they were actors.

MetroGIS Phase 2 – Sustained Strategic Plan Implementation – May 1996–July 2001

Phase 2 began in May 1996 and was completed in June 2001 with the conclusion of the second-generation data sharing agreements (see Figure 2). The five Strategic Initiatives outlined above were completed and solutions to common information needs of key stakeholders were being developed. Achieving these results depended in part on Randall Johnson's diligent efforts to build intra-county user groups to foster awareness of, support for, and coordinated use of GIS. They also were helped by a survey of more than 150 stakeholders to determine the data they needed to perform their jobs and the data they needed from others, information that laid out the basis for sharing. Reaching agreement with The Lawrence Group to share its Regional Street Centerline Dataset (identifying digitally the exact location of streets and intersections) provided a crucial component for developing DataFinder, a web-based data search and retrieval tool. Studies of MetroGIS financing, governance and organizational options affirmed the MC's role as the primary sponsor for fostering collaboration and stabilizing governance and organizational structures and processes.

''Expansions of the object of work'' (Engeström, Puonti and Seppänen 2003)—meaning typically taking the Strategic Initiatives further—also occurred in this phase, and included: the addition of new datasets, including detailed data on over one million land parcels from all seven counties; continued efforts to increase perceptions of the legitimacy and effectiveness of MetroGIS; adoption of the first formal business plan in April 2000; and in June 2000, MC approval of a statement of intent to continue support of MetroGIS's coordination functions. With this support, MetroGIS was able to move closer to a mature operational phase. Consequently, emphasis shifted to acquiring the agreements necessary to sustain long-term financing, data sharing, and congruence with geospatial policy for the rest of Minnesota and beyond. The phase ended with completion of the second-generation data sharing agreement. The agreement among data producers outlined the basis for sharing data and the precise mechanisms for doing so, including technological linkages among data producers and users. The new data sharing agreement reduced the number of licenses needed to access data from seven (one for each county) to two (one for six counties and another for the remaining county).

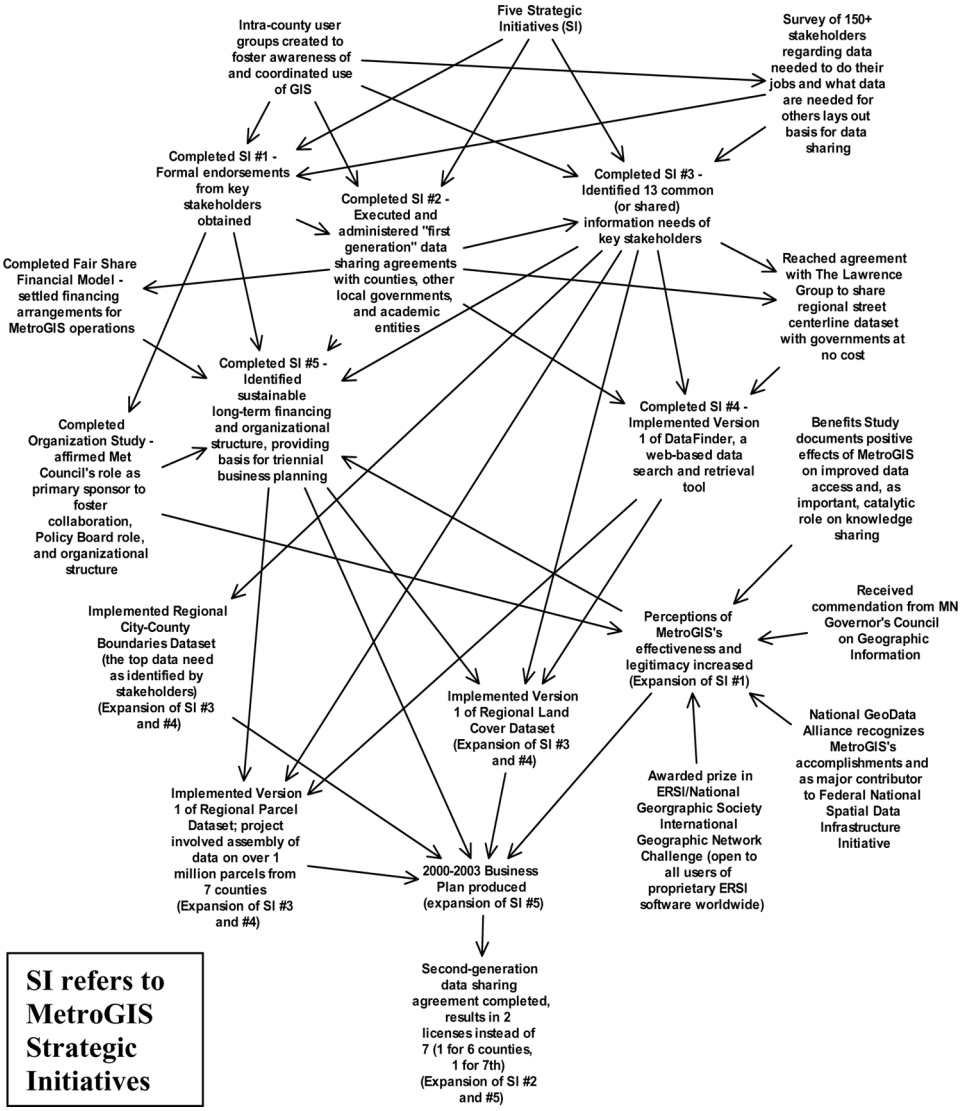

Figure 2. MetroGIS Phase 2 – Sustained Strategic Plan Implementation – May 1996–July 2001.

MetroGIS Phase 3 – Continuation of Strategic Plan Implementation and Development of the Next Strategic Plan – July 2001–Present

Phase 3 began in July 2001 and continues (see Figure 3). The phase focused on further implementation and "expansion of the object of work" of the strategies outlined in the 1995 strategy map: identifying additional needs for which MetroGIS might provide a solution, fostering institutional connectivity (associations) with the rest of Minnesota, enhancing the performance of MetroGIS's existing regional data

solutions, enhancing MetroGIS Data Finder, and developing the next strategic plan. Several major initiatives characterized this phase. The first, called the MetroGIS DataFinder Café, provided a state-of-the-art, Internet-enabled, GIS data distribution system. The second involved developing the 2003–2005 Business Plan, which led to new datasets being included, as well as development and implementation of the third-generation data sharing agreement involving a single license to access data from all seven counties. Third, a performance measurement program was instituted to ensure that MetroGIS is accomplishing its goals and meeting the needs of the MetroGIS community. In addition, MetroGIS emerged even stronger from a major challenge from within the MC to its continued existence via a program evaluation audit. According to MetroGIS Policy Board Chair Virginia Reinhardt, the organization had been called on to justify its existence as a public entity by MC decision makers; when a program audit found that MetroGIS produced benefits far in excess of its costs, the challenge disappeared (Virginia Reinhardt interview 2008). In June 2006 the MC endorsed MetroGIS and guaranteed its continued existence. That endorsement, along with a continuing series of awards and recognition, increased perceptions of MetroGIS's effectiveness and legitimacy.

Dealing with the program evaluation audit postponed development of the 2004–2006 Business Plan, but surviving the audit in even stronger shape set the stage for the second round of strategic planning (http://www.metrogis.org/about/business_planning). After considerable background work in the form of numerous meetings with numerous stakeholders stretching over many months, the strategic planning effort was formally launched with a second strategy mapping exercise, using the same methodology as before, on February 8, 2007. The mapping process involved approximately 40 key stakeholders and directly resulted in a new mission, goals, and strategies for the organization that respond to the new circumstances it faces. Some revisions to the guiding principles were also suggested. Details of the mapping process, including photographs and the maps themselves, will be found via the following website and embedded links: http://www.metrogis.org/about/business_planning/sdw/workshop_summary_07_0626.pdf.

After further consultations and meetings, the new mission, goals, and strategies were adopted by the policy board and incorporated into the new business plan. The new mission is: "The mission of MetroGIS is to expand stakeholders' capacity to address shared geographic information technology needs and maximize investments in existing resources through widespread collaboration of organizations that serve the Twin Cities Metropolitan Area" (www.metrogis.org). The new mission represents a significant change from the previous mission and helps MetroGIS "go to the next level" (Randall Johnson 2007, personal communication; Group interview 2008). Previously the purpose of the organization was to create a mechanism for sharing GIS information. The new mission states the purpose is to expand stakeholders' capacities to address GIS needs, maximize investments in existing resources, and foster widespread collaboration of organizations—not just governments—that serve the metropolitan area. The interviewees agree that the mapping process helped clarify for key MetroGIS stakeholders that the organization had outgrown its previous mission (i.e., the object of work has expanded and new prospective associations should be traced). In other words, mapping again made a difference—it was an actor.

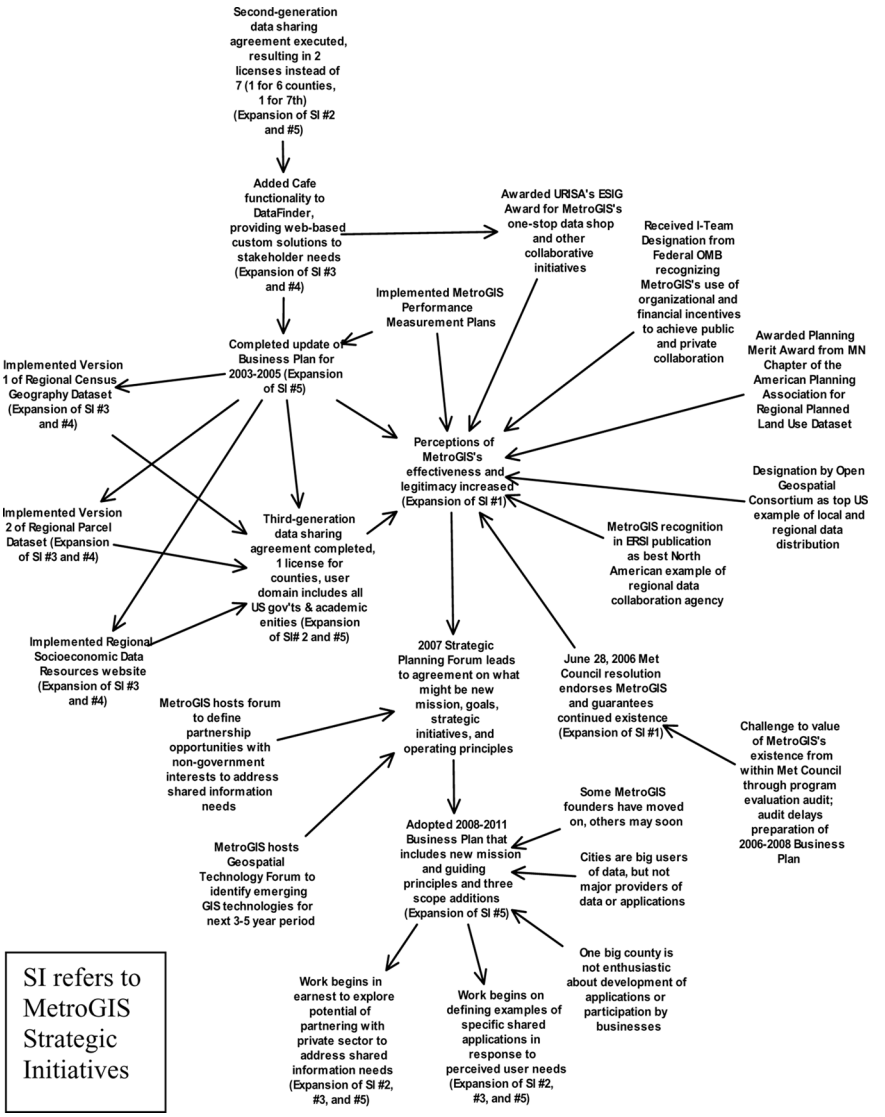

Figure 3. MetroGIS Phase 3—Continuation of Strategic Plan Implementation and Development of Next Strategic Plan—July 2001—Present.

The mapping exercise also resulted in a focus on eight major activity areas for the next three to five years, beginning in 2008. The activities are as follows:

- Develop and maintain regional data solutions to shared information needs;
- Expand endorsed regional solutions to include support and development of application services;

- Facilitate better data sharing through making more data available, having more uses, and improving processes;
- Promote a forum for knowledge sharing;
- Build advocacy and awareness of the benefits of collaborative solutions to shared needs;
- Expand MetroGIS stakeholders;
- Maintain funding policies that get the most efficient and effective use out of available resources and revenue for system-wide benefit.

MetroGIS did not list these major activity areas in priority order, as simultaneous work on some aspect of each will be important to successfully achieving the mission and desired outcomes.

Figure 3 also notes some additional controversies that have not yet been settled. Some MetroGIS founders have moved on; other may soon, so there is an ongoing issue around leadership transitions. In addition, cities are big users of data and applications, but are not major providers of them, so there is an issue around maintaining an equitable balance of benefits and contributions. And finally, one member county appears to be ambivalent about development of applications and participation by businesses.

FURTHER DISCUSSION

Recall that our purpose is to illuminate what it might mean to view strategic planning and the formulation and implementation of strategic plans as a way of knowing by using an ANT lens. By way of knowing we mean "a dynamic network of heterogeneous objects"—including human *and* non-human actors and ideas—in which the actors may *transform* the objects and ideas, and not just *transport* them as they move through time and across space (Feldman et al. 2006, 90; Latour 2005, 37–42, 223). Beyond that, knowing means aligning the human and nonhuman elements via active processes of ordering and sense making in such a way that desirable effects are achieved (Nicolini, Gherardi, and Yanow (2003, 19, 27). We are saying that strategic planning represents a kind of discursive practice meant to help produce such an alignment via active *bricoleurs* in situations where almost always "that order is not given but is always an emergent process" (ibid., 27).

We hope Table 1 (especially in its elaborated form available online) and Figures 1–3 help visibly demonstrate how the two major strategic planning efforts in the MetroGIS case helped actors order and make sense of their situations (Latour would say of their associations and actor-networks) for the purpose of responding to and changing their situations. In particular, both formal strategic planning exercises, the 1995 and 2007 Strategic Planning Forums, were embedded in these situations and simply cannot be understood separately from what preceded and followed them. These formal strategic planning exercises were part of a highly discursive practice involving many *mediators*—the actors—not *intermediaries*—to use Latour's terms. Even when viewed more abstractly (ostensively), the strategic planning activities in this case must be seen as *mediators* and not a simple transporters of causes to effects.

The exercises actually were complex cognitive, behavioral, social, and political endeavors in which thinking, acting, learning, and knowing mattered greatly, and in which some associations were reinforced, others were created, and still others were dropped in the process of formulating and implementing draft mission elements, goals, strategies, and actions. In the case of the first Forum, the exercise also resulted in: establishing guiding principles; creating the Coordinating Committee; and laying additional groundwork (associations) that resulted in an agreed MetroGIS governance and organizational structure; along with endorsement by the MC and all key stakeholders of the mission, goals, guiding principles, governance and organizational structure; and five strategic initiatives that were implemented and greatly expanded on in subsequent years. In the case of the second Forum, the exercise resulted in a changed mission and work on further broadening the network of stakeholders and uses of MetroGIS.

A central feature of both strategic planning forums was the use of strategy mapping, the creation of a word-and-arrow diagram linking scores of participant-produced statements into a network of mission-related ideas, goals, strategies, and actions (Bryson et al. 2004). All of the interviewees agree that the mapping exercises helped change their thinking and helped the groups involved in the exercises and in subsequent discussions by staff and policymakers reach agreement on mission, goals, strategies, actions. A crucial aspect of the creation of the maps was the interlinked creation of a reasonably shared understanding and agreement among a key group of stakeholders about purposes, goals, strategies, and actions; guiding principles; and the basis for an emergent strong coalition of supporters. In other words, the mapping exercises appear to have helped establish or reinforce ideational, social, and political linkages (associations) among MetroGIS sponsors, champions, and other key stakeholders. The outcomes of these processes were both tangible (a strategy map and a resulting strategic plan) and intangible (relationships, understandings, knowledge, commitments, and political will) (Bryson 2004a, 78–80)—in short, a way of knowing. Regarding the 1995 strategy mapping effort, Johnson would go so far as to claim, "We would be in a different place—maybe dead—without the mapping exercise. It enabled us to lock in very quickly on vision, goals, strategies and actions, get four teams organized and working right away, get the Coordinating Committee . . . It really helped people [meaning it acted as an agent] see the possibilities at a time when things easily could have fallen apart" (Randall Johnson 2008, personal communication). Other interviewees also commented on the importance of the strategy mapping session and the resulting map; they agree it was a "turning point" (Group interview 2008).

Regarding the 2007 mapping exercise, Johnson and the group interviewees agree that the mapping process and map (as an agent) led them to a new understanding that they had not started with; in other words, a new way of knowing among the network of participants resulted from the mapping exercise. Listen to the participants' observations (Group interview 2008):

- "2007 broadened the idea of what MetroGIS is about; [it is] so much more than just the parcel layer."

- "The 2007 mapping effort 'discovered' the stakeholder capacity-building mission concept, which was not part of the 1995 discussion."
- "The 2007 session helped [us make a] major transition from focusing on data integration to how best to utilize the integrated data that we now have access to."

Victoria Reinhardt, the policy board chair and a county commissioner, said:

> The February 2007 mapping session was a true turning point for MetroGIS. The Policy Board members and Coordinating Committee members there (and it was a diverse group by design) were able to talk like we almost never had before. It was the time we really looked at the big picture. We had some history to inform it. It was a painful process for staff because in many ways policymakers speak a different language. But everyone walked out with a better understanding of not only where we had been but what the possibilities were. We didn't have to limit ourselves (Virginia Reinhardt 2008, interview).

In short, the mapping process produced maps that were an assembly created by the actors present that traced associations among the ideas and actors, not all of whom were present; and the maps themselves were actants that changed the minds of their producers and guided subsequent action across time and space. The maps themselves, as well as the strategic planning process, offered ways of knowing.

Attention also should be given to the way that MetroGIS survived the challenge to its existence in Phase 3. Recall that MetroGIS had been called on to justify its existence as a public entity by MC decision makers; when the ensuing program audit turned out highly favorable to MetroGIS, the challenge disappeared and the MC endorsed MetroGIS and guaranteed its continued existence. This turn of events would appear to be an example of what Latour means by power being a process result, not an explanation of action (Latour 2005, 64). It is—in the sense that MetroGIS power was increased as a result of the incident; it is not—in the sense that the actions of MetroGIS Policy Board Chair Virginia Reinhardt and other key leaders helped produce the results. In other words, the powers of agents helped produce the result, and the result increased MetroGIS' power. Latour, in other words, seems to unwisely downplay the role that power plays in reproducing and increasing power.

Finally, some attention should be given to the creation of MetroGIS as a "macro actor" (Czarniawska and Hernes 2005). The table and figures go at least partway in delineating how MetroGIS was created step-by-step and association-by-association through the performances of actors and actants to become something of a single entity referred to by name and having a taken-for-granted quality. The performative has produced the ostensive, in that MetroGIS is now referred to in language as itself an actor; in other words, MetroGIS has become the subject of sentences in which their speakers see it is as the actor that produces the verbs that do or may produce subsequent effects. This is clearly a shorthand, but nonetheless the cumulative associations and stabilizations of various sorts have produced "the social" that has become part of the givenness of Twin Cities governance and the national and international GIS scene.

CONCLUSIONS

The proponents of strategic planning have basically uniformly asserted that strategic planning is best viewed as, in effect, a way of knowing meant to promote strategic thinking, acting, and learning; improve decision making; and improve organizational performance. They argue that at its best strategic planning in practice is a way of pulling together a variety of actors and actants into "a network of heterogeneous objects" (Feldman et al. 2006, 90) that show what may or should be done, with whom, how, where, when, and why in order to fashion and advance organizational purposes and goals. Strategic planning practices help provide some of the crucial ordering and sense making processes and artifacts needed to relationally constitute the web of heterogenous elements, where knowing involves keeping them in alignment in a legitimate, viable, productive, and generative way (Nicolini, Gheraradi, and Yanov 2003, 27).

In this paper we have sought to take seriously the idea of strategic planning as a way of knowing and to show how ANT is a particularly apt methodology for studying strategic planning as a way of knowing. While our examination of MetroGIS was not a full-blown ANT study, we hope that it does illustrate the likely merits of studying strategic planning from an ANT perspective. At the same time, by focusing on actors and the associations they trace (or not) ANT is well-suited to the task to discerning how and to what extent strategic planning in practice is inclusive, participative, and/or democratic.

Whether our arguments hold water depends very much on future empirical testing reliant on ANT methodology. Interestingly, ANT studies are in some ways *more* empirical, while also being generally less abstract, than variance studies, for they rely on rich descriptions in which "everything is data" (Latour 2005, 133). Latour recommends keeping at least four different kinds of written accounts (144): a log of events, a notebook to gather other relevant information, "writing trials" in which one attempts to "trace the associations," and accounts of the effects of the accounts on the actors. An ANT study thus can become a kind of action research (Eden and Huxham 2006). Mapping networks and changes in networks is also important (e.g., Van de Ven et al. 1999; Cambrosio, Keating, and Mougoutov 2004). Richly detailed qualitative and quantitative approaches such as these have simply not been applied to public strategic planning processes, although some efforts go partway (e.g., Bryson and Roering 1989; Barzelay and Campbell 2003; Wheeland 2004; Johnson et al. 2007; Vila and Canales 2008; Giraudeau 2008).

ANT-informed studies of strategic planning as a way of knowing are likely to lead to very different understandings and findings than most variance studies, because variance studies are typically not about the "sociology of associations," but about the "sociology of the social." Something can be learned from both types of studies, but not the same thing. As Latour (2005, 11) argues:

> It's true that in most situations resorting to the sociology of the social is not only reasonable but also indispensable, since it offers convenient shorthand to designate all the ingredients already *accepted* in the

> collective realm. It would be silly as well as pedantic to abstain from using notions like 'IBM,' 'France,' 'social capital,' 'individual agent,' 'peer pressure,' etc. But in situations where innovations proliferate, where group boundaries are uncertain, when the range of entities to be taken into account fluctuates [as in strategic planning], the sociology of the social is no longer able to trace actors' new associations. At this point, the last thing to do would be to limit in advance the shape, size, heterogeneity, and combination of associations.

Variance methods make a number of moves that from an ANT and a way of knowing perspective are highly suspect. Variance studies (1) posit as fixed or stabilized a *category of action*—strategic planning—that is in fact highly complex, variable, contested, and enmeshed in webs of associations; (2) posit as fixed or stabilized as a *standardized object*—strategic plans—that are also highly variable, contested, and enmeshed in webs of associations; (3) abstract both planning and plans out of the actor-networks within which they are enmeshed for study as simple variables that can be scaled; and then (4) measure statistical strengths of associations between precursors (as variables) of these actions and objects, with the actions and objects themselves (again as variables), and of precursors, actions, and objects with measures of performance (as variables) that are themselves suspect because of their constructed nature. Statistical associations among rather mythic entities are also likely to be rather mythical. These studies appear to be empirical, but in fact may have strayed quite far from real empiricism (Latour 2005, 111–112). They also certainly tell us virtually nothing about strategic planning as a way of knowing or about how to improve strategic planning as a way of knowing.

Viewing strategic planning as a way of knowing also highlights the importance of particular kinds of *objects* central to the process, including in MetroGIS's case the 1995 and 2007 strategy maps and the 2000–2003, 2003–2005, and 2008–2011 Business Plans. These material artifacts have functioned as "boundary objects" (Carlisle 2002; 2004; Kellogg, Orlikowski, and Yates 2006), which are physical objects that help people understand each other across various kinds of boundaries (departmental, organizational, disciplinary, cultural, etc.) Interviewees indicated that in particular the maps and the process of creating them were crucial to developing shared understandings of mission, goals, strategies, and actions; guiding principles; and the coalition needed to move forward. In the process of developing the maps, each member of the group got to know and understand the content and linkages; got to know each other member's views of the content and links; learned, discovered, and/or constructed what mission, goals, strategies, and actions are or might be; and could envision what pursuing the strategic plans might look like. Strategy mapping thus may be viewed first as a way of articulating matters of concern, e.g., possible missions, goals, strategies and actions, and then through dialogue and decision processes converting them into more stable matters of fact, e.g., agreed-upon mission, goals, strategies, and actions; and later, formal strategic plans. A strategy mapping exercise helps participants make sense of their world, what they may want

to do with it, and why; and in doing so the exercise helps participants connect people, ideas, and other kinds of actors into a way forward. Strategy mapping and similar processes thus hold considerable promise for fostering inclusive, participative, and democratic public management.

Said differently, the strategy maps acted as a kind of "transitional object" (Winnicott 1953) or "facilitative device" (de Geus 1988) from here-and-now real possibilities (concerns) to the there-and-then actualities (facts). Both matters of fact and matters of concern are real—not just imagined or constructed out of nothing; only our way of knowing them differs. And constructing and implementing a map is an example of what Latour means by creating the social, which "is not a mysterious cognitive feat, but a very practical world-building enterprise that consists in connecting entities with other entities, that is, in tracing a network" (2005, 103). Said differently, "The common world has still to be collected and composed" (118). The issue is "... not reality versus fiction, but multiple realities that may lead to stability and unity" (119). That is precisely how MetroGIS used both of its mapping exercises: to move in an inclusive, participative, and democratic way from real matters of concern to real facts on the ground, and to collect and compose "a common world" that is the trajectory of MetroGIS. By articulating linkages between thinking and acting, mapping and the maps provided a practical lay epistemology, or way of knowing (Weick 1995). The role of boundary objects, such as strategy maps and strategic plans, in strategic planning thus clearly merits further investigation, since they are crucial to viewing strategic planning as a practice (Schatzki, Knorr-Cetina, and Savigny 2001; Reckwitz 2002), particularly one that might foster inclusive public management.

Finally, we know strategic planning is now a very widespread practice among governments and nonprofit organizations in the United States, but why that should be so is unclear. Organizations may engage in strategic planning because everyone else does it; they are forced to do it; or because they think doing strategic planning helps mark their organization as professional and legitimate. But perhaps a more plausible argument is that organizations may engage in strategic planning because they find it useful as a way of knowing what they should do, how they should do it, with whom, where, when, and why. Clearly that was the case with MetroGIS, which presents a rather remarkable example of inclusive, participative, and also democratic planning and organizational growth and development with over 300 organizational partners, mostly units of government. We think viewing strategic planning *as practiced* as a *way of knowing* offers a very useful way of knowing what we do—and do not—know about strategic planning both ostensively and performatively, and then of using that knowledge both to inform the study of strategic planning and its practice, especially in inclusive, participative, and democratic contexts.

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NOTE

1. Information in this section is drawn from a variety of sources: A history of MetroGIS written by Timothy Delmont (2008); archival records; the MetroGIS website; participant-observation; and especially from several interviews in 2006, 2007, and 2008 of Randall Johnson, MetroGIS staff coordinator for the Metropolitan Council; a lengthy, 2008 facilitated group interview of key actors over the course of MetroGIS's existence: Victoria Reinhardt, Ramsey County (MN) commissioner and chairperson of the MetroGIS Policy Board, MetroGIS; Terry Schneider, City of Minnetonka (MN) council member and member of the MetroGIS Policy Board; Nancy Read, technical coordinator of the Metropolitan Mosquito Control District and member and former chair of the Coordinating Committee; Jane Harper, principal planner for Washington County (MN) and member and former chair of the Coordinating Committee; and William Craig, associate director of the Center for Urban and Regional Affairs at the University of Minnesota and member and former chair of the Coordinating Committee; and individual 2008 interviews of Harper; Read; Reinhardt; Schneider; Craig; Rick Gelbmann, director of the Metopolitan Council GIS Unit; Tony Pistilli, Metropolitan Council member; Mark Kotz, former MetroGIS staff member; and Sally Wakefield, director of 1000 Friends of Minnesota.

REFERENCES

Ackermann, F., C. Eden, and I. Brown. 2005. *The Practice of Making Strategy: A Step-By-Step Guide*. London: Sage.

Altshuler, A. A. 1965. *The City Planning Process: A Political Analysis*. Ithaca, NY: Cornell University Press.

American Heritage Dictionary. 2000. New York: Dell Publishing.

Andrews, R., G. A. Boyne, and R. M. Walker. 2006. "Strategy Content and Organizational Performance: An Empirical Analysis." *Public Administration Review* 66(1): 52–63.

Andrews, R., G. A. Boyne, J. Law, and R. M. Walker. 2009. "Strategy Formulation, Strategy Content, and Performance: An Empirical Analysis." *Public Management Review* 11(1): 1–22.

Barzelay, M. and C. Colin. 2003. *Preparing for the Future: Strategic Planning in the U.S. Air Force*. Washington, DC: Brookings Institution Press.

Berman, E. M. and J. P. West. 1998. "Productivity Enhancement Efforts in Public and Nonprofit Organizations." *Public Productivity and Management Review* 22(2): 207–219.

Blackler, Frank. 1993. "Knowledge and the Theory of Organizations: Organizations as Activity Systems and the Reframing of Management." *Journal of Management Studies* 30(6): 863–884.

Blackler, F., N. Crump, and S. McDonald. 2003. "Organizing Processes in Complex Activity Networks." Pp. 126–150 in D. Nicolini, S. Gherardi and D. Yanow, eds., *Knowing in Organizations: A Practice-Based Approach*. Armonk, New York: M.E. Sharpe.

Borins, S. 1998. *Innovating with Integrity: How Local Heroes Are Transforming American Government*. Washington, DC: Georgetown University Press.

Boyne, G. A. 2001. "Planning, Performance, and Public Services." *Public Administration* 79: 73–88.
Boyne, G. A., J. S. Gould-Williams, J. Law, and R. M. Walker. 2004. "Problems of Rational Planning in Public Organizations: An Empirical Assessment of the Conventional Wisdom." *Administration and Society* 36(3): 328–350.
Boyne, G. A., and J. S. Gould-Williams. 2003. "Planning and Performance in Public Organizations: An Empirical Analysis." *Public Management Review* 5(1): 115–132.
Bryson, J. M. 2004a. *Strategic Planning for Public and Nonprofit Organizations,* 3rd edition. San Francisco: Jossey-Bass.
Bryson, J. M. 2004b. "What To Do When Stakeholders Matter: Stakeholder Identification and Analysis Techniques." *Public Management Review* 6(1): 21–53.
Bryson, J. M., F. Ackermann, C. Eden, and C. B. Finn. 2004. *Visible Thinking: Unlocking Causal Mapping for Practical Business Results*. New York: Wiley.
Bryson, J. M. and P. Bromiley. 1993. "Critical Factors Affecting the Planning and Implementation of Major Projects." *Strategic Management Journal* 14: 319–337.
Bryson, J. M. and W. D. Roering. 1989. "Mobilizing Innovation Efforts: The Case of Governments in Strategic Planning." Pp. 583–610 in A. H. Van de Ven, H. Angle, and M. S. Poole, eds., *Research on the Management of Innovation*. Cambridge, MA: Ballinger.
Bryson, John M., P. Bromiley, and Y. S. Jung. 1990. "Influences on the Context and Process on Project Planning Success." *Journal of Planning Education and Research* 9(3): 183–185.
Cambrosio, A., P. Keating, and A. Mogoutov. 2004. "Mapping Collaborative Work and Innovation in Biomedicine: A Computer Assisted Analysis of Antibody Reagent Workshops." *Social Studies of Science* 34(3): 325–364.
Carlisle, P. R. 2004. "Transferring, Translating, and Transforming: An Integrative Framework for Managing Knowledge Across Boundaries." *Organization Science* 15(5): 555–568.
Carlisle, P. R. 2002. "A Pragmatic View of Knowledge and Boundaries: Boundary Objects in New Product Development." *Organization Science* 13(4): 442–455.
Czarniawska, B. and T. Hernes, eds. 2005. *Actor-Network Theory and Organizing*. Malmo, Sweden: Elanders Berling.
de Geus, A. P. 1988. "Planning as Learning." *Harvard Business Review* (March–April): 70–74.
Delmont, T. 2008. "A Brief History of MetroGIS." Minneapolis, MN: Hubert H. Humphrey Institute of Public Affairs, University of Minnesota. Unpublished manuscript.
DiMaggio, P. J. and W. W. Powell. 1983. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality." *American Sociological Review* 48: 147–160.
Eden, C. and C. Huxham. 2006. "Action Research." Pp. 388–408 in C. Hardy, S. R. Clegg, and W. Nord, eds., *Handbook of Organization Studies,* 2nd ed. Thousand Oaks, CA: Sage.
Engestrom, Yrjo, A. Puonti, and L. Seppanen. 2003. "Spatial and Temporal Expansion of the Object as a Challenge for Reorganizing Work." Pp. 151–187 in D. Nicolini, S. Gherardi, and D. Yanow, eds., *Knowing in Organizations: A Practice-Based Approach*. Armonk, NY: M.E. Sharpe.
Feldman, M. S. and A. M. Khademian. 2000. "Managing for Inclusion: Balancing Control and Participation." *International Journal of Public Management* 3(2): 149–168.
Feldman, M. S. and A. M. Khademian. 2007. "The Role of the Public Manager in Inclusion." *Governance* 20(2): 305–324.
Feldman, M. S., A. M. Khademian, H. Ingram, and A. S. Schneider. 2006. "Ways of Knowing and Inclusive Management Practices." *Public Administration Review* 66: 89–99.
Feldman, M. S. and B. T. Pentland. 2003. "Reconceptualizing Organizational Routines as a Source of Flexibility and Change." *Administrative Science Quarterly* 48: 94–118.

Feldman, M. and B. T. Pentland. 2005. "Organizational Routines and the Macro-Actor." Pp. 91–111 in B. Czarniawska and T. Hernes, eds., *Actor-Network Theory and Organizing*. Malmo, Sweden: Elanders Berling.

Feldman, M. S. and B. T. Pentland. 2008. "Routine Dynamics." Pp. 302–315 in D. Barry and H. Hansen, eds., *The SAGE Handbook of New Approaches in Management and Organization*. London: Sage.

Fleck, L. 1981. *Genesis and Development of Scientific Fact*. Chicago: University of Chicago Press.

George, A. L. and A. Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press.

Giraudeau, M. 2008. "The Drafts of Strategy: Opening Up Plans and Their Uses." *Long Range Planning* 41(3): 291–308.

Healey, P. 2006. *Collaborative Planning: Shaping Places in Fragmented Societies, 2nd ed.* London: Palgrave Macmillan.

Hendrick, R. 2003. "Strategic Planning Environment, Process, and Performance in Public Agencies: A Comparative Study of Departments in Milwaukee." *Journal of Public Administration Research and Theory* 13: 491–519.

Innes, Judith E. and D. E. Booher. 1996. "Consensus Building as Role Playing and Bricolage: Toward a Theory of Collaborative Planning." *Journal of the American Planning Association* 65(1): 9–26.

Jarzabkowski, P. 2005. *Strategy as Practice: An Activity-Based Approach*. London: Sage.

Johnson, G., A. Langley, L. Melin, and R. Whittington, eds. 2007. *Strategy as Practice: Research Directions and Resources*. New York: Cambridge University Press.

Johnson, G., K. Scholes, and R. Whittington, eds. 2008. *Exploring Corporate Strategy,* 8th ed. London: Prentice Hall.

Kellogg, K. C., W. J. Orlikowski, and J. Yates. 2006. "Life in the Trading Zone: Structuring Coordination Across Boundaries in Postbureaucratic Organizations." *Organization Science* 17(1): 22–44.

Latour, Bruno. 1987. *Science in Action*. Cambridge, MA: Harvard University Press.

Latour, Bruno. 2005. *Reassembling the Social*. New York: Oxford University Press.

Law, J. and J. Hassard 1999. *Actor Network Theory and After*. Oxford: Blackwell Publishing.

Law, J. 1987. "Technology and Heterogeneous Engineering: The Case of the Portuguese Expansion." Pp. 111–134 in W. E. Bjiker, T. P. Hughes and T. J. Pinch, eds., *The Social Construction of Technical Systems: New Directions in the Sociology and History of Technology*. Cambridge, MA: MIT Press.

Meier, K., L. J. O'Toole, G. A. Boyne, and R. M. Walker. 2007. "Strategic Management and the Performance of Public Organizations: Testing Venerable Ideas against Recent Theories." *Journal of Public Administration Research and Theory* 17(3): 357–377.

Miles, R. and C. Snow. 2003. *Organizational Strategy, Structure, and Process*. Palo Alto, CA: Stanford Business Books.

Miller, C. C. and L. B. Cardinal. 1994. "Strategic Planning and Firm Performance: A Synthesis of More than Two Decades of Research." *Academy of Management Journal* 37(6): 1649–1665.

Mintzberg, H. 1994. *The Rise and Fall of Strategic Planning*. New York: Free Press.

Mintzberg, H., B. Ahlstrand, and J. Lampel. 1998. *Strategy Safari: A Guided Tour through the Wilds of Strategic Management*. New York: The Free Press.

Mohr, L. 1982. *Explaining Organizational Behavior*. San Francisco: Jossey-Bass.

Nicolini, D., S. Gherardi, and D. Yanow 2003. *Knowing in Organizations: A Practice-Based Approach*. Armonk, NY: M.E. Sharpe.

Pfeffer, J. and R. I. Sutton. 2006. *Hard Facts, Dangerous Half-Truths, and Total Nonsense: Profiting from Evidence-Based Management*. Boston: Harvard Business School Press.
Poister, T. H. and G. Streib. 2005. "Elements of Strategic Management in Municipal Government: Status after Two Decades." *Public Administration* Review 65(1): 45–56.
Radin, B. A. 2006. *Challenging the Performance Movement: Accountability, Complexity and Democratic Values*. Washington, DC: Georgetown University Press.
Reckwitz, A. 2002. "The Status of the Material in Theories of Culture." *Journal for the Theory of Social Behaviour* 32(2): 195–217.
Roberts, N. C. and L. Wargo. 1994. "The Dilemma of Planning in Large-Scale Public Organizations: The Case of the United States Navy." *Journal of Public Administration Research and Theory* 4(4): 469–491.
Schatzki, T. R., K. Knorr-Cetina, and E. Savigny. 2001. *The Practice Turn in Contemporary Theory*. New York: Routledge.
Tryggestad, K. 2005. "Technological Strategy as Macro-Actor: How Humanness Might be Made of Steel." Pp. 31–49 in B. Czarniawska and T. Hernes, eds., *Actor-Network Theory and Organizing*. Malmo, Sweden: Elanders Berling.
Van de Ven, A. H. 2007. *Engaged Scholarship: A Guide for Organizational and Social Research*. New York: Oxford University Press.
Van de Ven, A. H., D. Polley, R. Garud, and S. Venkataraman. 1999. *The Innovation Journey*. New York: Oxford University Press.
Van der Heijden, Kees. 2005. *Scenarios: The Art of Strategic Conversation,* 2nd ed. London: Wiley.
Vila, J. and J. I. Carnales. 2008. "Can Strategic Planning Make Strategy More Relevant and Build Commitment Over Time? The Case of RACC." *Long Range Planning* 41(3): 273–290.
Weick, K. 1995. *Sensemaking in Organizations*. Thousand Oaks, CA: Sage.
Wheeland, C. 2004. *Empowering the Vision: Community-Wide Strategic Planning in Rock Hill, SC*. Lanham, MD: University Press of America.
Wildavsky, A. 1979. *Speaking Truth to Power: The Art and Craft of Policy Analysis*. Boston: Little, Brown.
Winnicott, D. W. 1953. "Transitional Objects and Transitional Phenomena." *The International Journal of Psycho-Analysis* 34(2): 89–97.

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