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# The history and future of nation-building? Building capacity for public results

Jocelyne Bourgon

#### Abstract

The goal of nation-building is to build the collective capacity to achieve public results and to pursue a shared vision of the future. This article, which is based on a theoretical vantage point and the author's experience as a senior public official, explores the theme of collective capacity-building from the point of view of government. It describes how achieving collective results requires institutional and organizational capacities but, building on these foundations, governments must also develop greater capacity to anticipate, innovate and adapt in the face of increasingly complex public issues and unpredictable circumstances.

#### Points for practitioners

Building institutional capacity has been a focus of governments for many decades and, indeed, centuries. Building organizational capacity has been the centrepiece of reforms since the 1980s. But public organizations are not yet aligned with the complex problems they are expected to address. Addressing complexity and uncertainty will likely require practitioners to work with (i) a broader definition of public results, (ii) an expanded view of the role of government and of the range of possible relationships between government and citizens, and (iii) a more dynamic approach to public administration.

**Keywords:** capacity, complexity, emergence, governance, government, public administration, public policy, public results, resilience

#### Introduction<sup>1</sup>

Public administrations vary from country to country; they reflect different circumstances, needs and philosophies about the role of government in society. Despite

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these differences, public administrations also have much in common: they exist to serve the public interest (Bourgon, 2007), which is the normative foundation of the state and the public sector apparatus.

The pursuit of nation-building or state-building stems from a political and philosophical choice. Either way, the goal is to *build the collective capacity to achieve public results* and to pursue a shared vision of the future.

In this article, the theme of collective capacity-building is explored from the point of view of government through the following questions:

- What capabilities, old and new, will government need to serve in the twenty-first century?
- What capacities will be needed to address complex issues in the increasingly unpredictable environment of globalized economies, networked societies and a fragile biosphere?

Moreover, the collective capacity to achieve public results is not limited to government. *People* build nations, nation-states and public institutions. The *spirit* of public service extends well beyond government and public service organizations. *People* from all walks of life and many fields of endeavour contribute to the achievement of public results. In doing so, they are *acting as citizens*, whether or not they enjoy all the privileges of citizenship and regardless of the amount of time they have spent in a given country. *People* are at once citizens of their country and citizens of the world; they are members of their local community and of their chosen communities of interests.

Given this, the article also asks:

 What capabilities in people, communities and institutions would enhance the collective capacity to achieve public results?

Achieving collective results requires a strong *institutional capacity* to provide the necessary checks and balances to the exercise of power, to propose laws and ensure their enforcement, to encourage social justice, and to guarantee the efficient use of public funds and the accountability of office holders. Building institutional capacity has been a focus of governments and societies for many decades and, indeed, centuries.

Achieving public results also requires *organizational capacity* to allow public sector organizations to work seamlessly across agencies within government and with multiple partners beyond government. Building organizational capacity has been of particular concern for governments since the 1980s and has been a centrepiece of reforms from that time forward.

The transformations that have taken place in the public sector since the 1980s are incomplete, but the pace of reform is not likely to abate because public organizations are not yet aligned with the global context or the complex problems they are expected to address.

Building on their institutional and organizational strengths, governments are called upon to play a more dynamic, more complex, and less certain role. This new role will require the integration of government authority and the collective power of other actors to bring about results of high public value. It will be needed in the face of com-

plex issues and unpredictable circumstances. This role brings with it the responsibility for helping to build the collective capacity for innovation and the adaptive capacity of society.

An increasing number of public policy issues require the active contribution of citizens as users, value creators or active agents of change to achieve the desired public results. As a result, future public sector reforms will go beyond the traditional relation between governments as providers of services to citizens to explore how governments can work with citizens to produce results of high public value. This appears to be a promising avenue for governments and societies to find creative solutions to complex issues, to turn challenges into opportunities, and to bounce back from unforeseen shocks and crises.

These reforms will require (i) a broader definition of public results, (ii) an expanded view of the role of government and of the range of possible relationships between government and citizens, and (iii) a more dynamic approach to of the field of public administration in order to address complex issues in unpredictable environments.

This article explores what some of these reforms and supporting ideas may look like and proposes ideas that may help elected officials and public servants face some of the challenges and dilemmas of serving in the twenty-first century.

### Achieving public results

The role of public organizations is to achieve results of high public value in ways that advance civic or democratic principles (Van Dooren et al., 2004). High performance in the public sector includes achieving public policy and civic results (see Figure 1).

# **Achieving Public Results Public Policy Results** Societal System-wide Agency AND Citizenry Community Civic spirit Civic Results

Figure 1 Achieving public policy and civic results

#### Public policy results

In government, no organizational unit, agency or department works alone: no activity, service or programme is self-sufficient. In most policy areas, governments achieve results through a mix of instruments, such as laws, regulations, tax credits, and transfers to individuals or other levels of government (Salamon, 2002). Furthermore, governments achieve results by working through vast networks of actors and organizations, including citizens and civil society groups, who have a stake in achieving common policy outcomes.

Individual programme and agency results are important because they link inputs, such as taxpayers' money, to outputs and user satisfaction. But a government programme's true measure of success is the contribution it makes to system-wide and societal results (Bourgon, 2008a). For instance, the best-performing school is not necessarily the one with the highest individual results. A particular school may have low performance indicators on standardized test scores, but make an important contribution to the overall performance of the education system and quality of life in its local community. In another example, high user satisfaction with a particular medical service is not necessarily a sign of success if these results are achieved using scarce resources that could be allocated to meeting more important health priorities.

Achieving results of high public value in government is a collective effort that cuts across programme or agency boundaries. This is observable, for example, in pursuits of 'joined-up' or 'holistic' government (Kernaghan, 2009; Perri 6 et al., 2002; Pollitt, 2003). Departmental successes achieved at the expense of government-wide results do not demonstrate performance or quality. Public sector organizations have a responsibility to explore how to move their contributions up the value-added chain of results and weigh their value against the achievement of *system-wide* and *societal* results.

Governments in different parts of the world are paying greater attention to system-wide results (Bouckaert and Halligan, 2008). A few have focused on societal results. In a recent initiative, for example, in 2008 the President of France created a Commission on the Measurement of Economic Performance and Social Progress to address concerns about the adequacy of current measures of economic performance and their relevance to societal well-being as well as economic, social and environmental sustainability.<sup>2</sup>

These macro-level approaches to results are more promising than the emphasis that has been placed on micro-performance measurement since the early 1990s (Bourgon, 2008a). This is because public policy results and civic results converge most meaningfully at more macro levels, and in particular at the level of society. These are *collective results* achieved by all agents, whether from the public and private spheres or civil society. They reflect the state of society to citizens and decision-makers, helping to shape the *collective interests* that, in turn, inform government actions.<sup>3</sup>

#### Civic results

Public sector organizations are expected to live up to the ideal of democratic principles and to advance civic results, which they do in many ways. They allow their oversight by a legislative assembly, ensure that holders of public office are accountable for the exercise of power, provide for transparency, ensure access to information, and

encourage participation in the policy cycle to ensure greater buy-in and support for government initiatives (Bourgon, 2009). These principles and related measures constitute what the Organisation for Economic Co-operation and Development (OECD) calls 'open and inclusive government', towards which many countries have made progress over recent years (OECD, 2008).

But more can be done. Civic results include, but are not limited to, an active citizenry, empowered communities and a civic spirit that infuses every aspect of life in society and encourages collective action. It is possible to improve the civic results of most government programmes and activities by taking measures to remove the barriers to an active citizenry and encouraging community and collective capacitybuilding. An explicit commitment to improving civic results would entail exploring an enhanced role for citizens and their communities along a number of vectors:

- Transparency and accountability: Expanding the concept of accountability from that of process accountability for the exercise of powers by office holders to public accountability for progress towards system-wide and societal results. This may take the form of a comprehensive public reporting system, such as a scorecard with benchmarks, like the one published by the Progress Board in the Province of British Columbia, Canada.<sup>4</sup> A complementary and more ambitious approach to scorecards would be a workable system of shared accountability for the multiple actors involved in achieving system-wide and societal results.
- Access: Building on progress with creating 'single window' service delivery organizations, such as Australia's Centrelink and Canada's Service Canada (Kernaghan, 2009) and e-government, focus on further enabling citizens' access to government (including knowledge held by government) in their communities, on their terms, and according to their needs. This would further the development of a modern knowledge infrastructure to facilitate networking, encourage collective innovation and allow governments and citizens to shape and harness the collective intelligence of our networked society.
- Voice: Expanding the avenues for integrating the voices of citizens and their communities in relevant aspects of public administration. This includes exploring the potential for integrating feedback into the programme improvement cycle, building communication platforms that enable citizens to hear each others' voices and to interact with policy-makers and service providers to improve decision-making, programmes and results. Many countries have been pursuing these actions, for example, through public consultation and citizen engagement processes in policy-making and through user feedback processes in service delivery (OECD, 2009). This work should continue, and should place more emphasis on removing barriers to hearing the voices of the most vulnerable, the less literate, the poor, the young and the elderly (United Nations, 2007).
- Choice: Instead of having public servants exercising all of the discretionary authority that stems from the flexibility that exists in most government programmes and activities, allowing citizens and communities to exercise discretion on their own behalf to meet their own needs within the law and in a manner that respects professional and political accountabilities. Participatory

budgeting processes which are being used at sub-national levels in a host of countries serve as an example here (World Bank Participation and Civic Engagement Team, 2003; United Nations Economic and Social Affairs, 2005).

Action: Encouraging the active role of citizens, communities and other actors
as value creators and as active agents in producing public goods, inventing
solutions to common problems and shaping a future they desire. In the face of
complex challenges, such as climate change and pandemics, governments are
on an steep learning curve in this regard.

The challenge for government is to achieve public policy and civic results — not one or the other, and not one at the expense of the other. Public policy results build the *credibility* of governments; civic results increase their *legitimacy*. In combination, credibility and legitimacy enhance citizens' *trust* in governments, public institutions and public sector organizations. This challenge is not limited to democratic societies. It applies to countries with or without elections and with or without multiple parties (Mahbubani, 2009). People the world over are seeking to play a more active role in the areas of greatest importance to them. Governments ignore the voice of their people at their peril (Bourgon, 2007; Thomas, 1995).

Optimizing public policy results and civic results is a difficult balancing act. It requires fine judgement and can only succeed in practice by taking into account context, culture and circumstances. The current challenge is to ensure that the pursuit of civic results is embedded in all government activities on an equal footing with the pursuit of public policy results.

Many countries have made great strides towards achieving better public sector results (Halligan, 2007). However, public administrators generally have been working from an *incomplete definition* of public results — one that does not give sufficient weight to civic results. They have been working from *too narrow a view* of the potential roles of government and the possible contributions of citizens and their communities. They have allowed *too high a degree of separation* between public policy results and civic results in evaluating the contribution of public organizations to society.

Public administrators must mediate between a drive for efficiency gains and the need to engage citizens, even at the expense of some degree of efficiency. Improving civic results builds the collective capacity to achieve better public results over time, even if it entails a higher cost in the short term. A focus on civic results positions citizens and their communities as *active agents* in shaping collective interests and as *value creators* in producing public results.

## **Government and governance**

Traditionally, government is seen as the *primary agent* in defining the public good and serving the collective interest. According to this view, government sets the agenda for change, proposes new laws and enforces existing ones. Government is the provider of public services, the legislator and the mediator who arbitrates among conflicting interests.

In a conventional perspective, citizens are seen as bearers of rights, taxpayers and

beneficiaries of government programmes. More recently, they have come to be seen as users of public services and clients of public organizations.

This view of the role of government and its relationships with citizens and their communities will be insufficient to face an increasing number of challenges in the twenty-first century (Kettl, 2002). A number of developments already make this clear.

- The importance of direct delivery is declining. Indirect tools such as transfer payments to individuals and other levels of government, tax credits, vouchers, grants, loans and indirect service delivery through third parties or public-private partnerships account for the bulk of government spending and have reduced the use of direct service delivery (Salamon, 2002).
- Governments are not acting alone. Increasingly, governments must reach out to other governments, the private sector, civil society and citizens to achieve many of the results people care about, ranging from food safety to national security or to poverty alleviation. In these cases, it is more appropriate to think in terms of governance than of government (Denhardt and Denhardt, 2003; Kettl, 2002). As governments share responsibilities, risks and power, they play an increasingly difficult role: they must build on the strength of others; ensure equitable risksharing between the public, private and civil spheres; and initiate corrective actions when the public interest demands it.
- Citizens and other stakeholders are active agents and creators of public value. This is the case when policy issues exceed the legislative and regulatory power of the state, or when they exceed government's ability to act unilaterally. Such is generally the case when the issues require a substantial change in individual and societal behaviour (Bingham et al., 2005).

Governments can make laws on public health, crime prevention and habitat protection. They can tax and spend to build hospitals and fund public healthcare services. They can deploy police forces and inspection officers. But the choices citizens make and the actions citizens take at home, at work, in their families and in their communities are the main contributors to collective health, public safety or a clean environment.

The challenge of an HIV/AIDS epidemic in Brazil in the 1990s can serve as an example. Among other direct efforts, the Brazilian government worked to amend an international trade agreement to allow Brazil to produce the generic AIDS drugs it required. This direct work of government was complemented by a comprehensive community approach that involved health workers, civil society groups and volunteers who pursued a unique health campaign that promoted new sexual behaviours and removed social stigma. As a result, infection rates dropped dramatically (Westley et al., 2006).

Governments cannot address an increasing number of complex policy issues, ranging from global warming and the global financial crisis to obesity, illiteracy or racism by working alone. Such issues require the active participation of citizens and their communities, and the contribution of multiple stakeholders. Without these, government initiatives will falter (Klijn, 2008).

It is important to note that the vast array of initiatives that support more participatory and inclusive government has generated some legitimate concerns (Bourgon, 2009). These include concern that citizen consultation and participation may be costly, delay decisions and prevent timely action (Irvin and Stansbury, 2004); that participation becomes a dogma such that *more is always seen to be better*, that not all citizens want to, or have the capacity to, participate, and that participation processes will be hi-jacked by single-interests or those with the loudest voices (Pollitt, 2007).

To be sure, citizen and community participation is not a panacea and is not appropriate in all cases. Government needs to use it deliberately and wisely. At minimum, governments need to engage citizens and other actors when government expects them to play active roles as 'agents' of public policies. Citizen participation has both substantive and instrumental value. It has substantive value because it helps to constitute an active citizenry, empowered communities and civic spirit. It has instrumental value in that it can help to produce greater support for government initiatives and better public policy results. For example, the large citizen engagement effort that was used to create a blueprint for rebuilding New Orleans after hurricane Katrina has been seen as a key factor in revitalizing the community after the devastation (Lukensmeyer, 2007).

Recognizing that they need to harness the *collective power* of society, governments have been working to complement traditional ways of governing with new approaches that enable and empower others. As governments move towards producing results *with* others, they are expanding the repertoire of roles they can play to achieve various public results (Lenihan et al., 2007). Governments can act as:

- a partner who uses the resources and power of the state to encourage the contributions of others;
- a responsible and reliable contributor in a system of shared governance who shares responsibility for framing issues, implementing solutions and accounting for results (Denhardt and Denhardt, 2003);
- a facilitator who encourages the creation and expansion of collaborative governance networks and associations of self-organizing actors (Klijn, 2008; Teisman and Klijn, 2008) that serve as platforms for co-operation, collective intelligence and social innovation;
- a thought leader and proactive agent who co-creates and evolves with others in a system of adaptive governance that transforms the context and the actions of all actors to improve the likelihood of favourable policy outcomes (Klijn and Teisman, 2006).

Governments have a broad array of options, ranging from acting alone to exercising the authority of the state, with which to lever the collective power of society (see Figure 2). In all cases, government remains the *steward of the collective interest* with the responsibility for mediating between the public, the private and civil society spheres and *with the power to intervene* when the public interest demands it.

The more dispersed the decision-making and the more distributed the exercise of power, the more important the stewardship role of government becomes. This role involves *monitoring*, *anticipating* and *course correcting*. It has received insufficient



Figure 2 Government authority, collective power and results

attention in the recent past. Katz (2009), for example, observes that this role was lacking during the events that led up to near collapse of the global financial system. in 2008.

Seen in this light, public administration is not a structure or a rigid set of rules. It is a dynamic, open and interactive system where the authority of the state is used in different ways to achieve different public results. Public administration takes shape in an expansive space of possibilities.

# Building the capacity to serve — a solid foundation

An expanded definition of public results combined with a broader view of the roles of government provide the forum for new directions for future public service reforms to take shape and new ways to build the collective capacity to achieve public results to be explored.

Public administration incorporates history, traditions and conventions. Building the collective capacity to achieve public results starts by valuing past developments and preserving existing capacities. Central among these is the focus on 'compliance', which is the hallmark of good government. It includes:

- a respect for the rule of law and public institutions;
- due process, including fairness, transparency and accountability for the exercise of powers and the use of public funds; and
- public sector values, including the expectation that public servants, in serving the public trust, will exhibit integrity, probity and impartiality.

Together, these factors contribute to building the *institutional capacity* of the state apparatus and provide a solid foundation for public organizations.

Since there is no such thing as *good government* without *well-performing public sector* institutions, it is also important to retain the sharp focus governments have placed on *performance* over the last two decades. Public administrations should preserve and value:

- the internal drive for making government more productive, efficient and effective;
- the attention paid to improving service delivery and the need for continuing improvements in response to the expectations of citizens and to changing circumstances;
- the focus on sound governance that incorporates other sectors and actors; and
- the power of modern information and communication technologies that is transforming the role of government, the relationship between government and citizens, and the role of public servants.

These factors contribute to building the *organizational capacity* of government departments and public agencies to work across boundaries. They are a necessary condition for the vast networks of organizations from the public, private or civil spheres to achieve common public results (see Figure 3).

The contributions from the compliance and performance traditions have been significant and complementary. However, they will not be enough for governments to face the challenges of the twenty-first century (Bourgon, 2008b). These traditions and models are best suited to stable contexts, predictable tasks and a government-centric approach to achieving public results; therein reside their strengths and value-added.

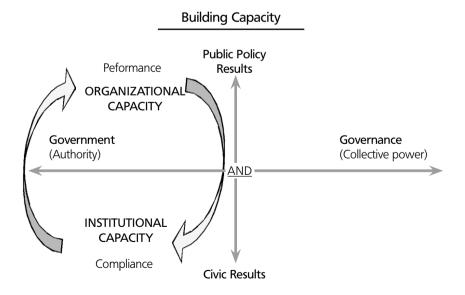


Figure 3 Building institutional and organizational capacity

### Serving beyond the predictable: uncertainty and complexity

The role of government today extends beyond predictable activities and circumstances. It entails dealing with complex issues - some of which have the features of 'wicked problems' (Ho, 2008) — in *unpredictable* contexts, such as a global economy or networked societies, where multiple players are acting simultaneously.

Pressure is building on governments to improve their capability to anticipate, pre-empt and, if possible, prevent crises ranging from pandemic diseases to global economic meltdowns, from global warming to a potential food crisis.

#### Uncertainty

Since the 1980s, the world has become vastly more interconnected, networked and 'flat' (Friedman, 2005). Local problems can guickly become global problems, and global problems can have a wide and unpredictable range of local impacts (Holling, 1986). An increasing number of people, groups and organizations make important decisions in an increasing number of locations. There is growing fragmentation. Their decisions are influenced by the decisions of others and by their expectations of what others may do. There is increasing interdependence (Koppenjan and Klijn, 2004). With fragmentation and interdependence comes uncertainty.

Each decision and each action has *limited effect*, but the power of multiple decisions moving in a similar direction can change the course of events around the globe at the speed of light. This condition is neatly captured in the famous 'butterfly effect', in which the flapping of a butterfly's wing in Beijing can change weather patterns in the Gulf of Mexico (Morgan, 1997: 265). It can also be described as 'emergence' - new patterns arise out of a vast array of interactions and seemingly out of nowhere (Goldstein, 1999; Holland, 1998). These new patterns reveal the power of adaptation, self-organization and evolution (Mitleton-Kelly, 2008). They also point out the limitations of 'grand designs' no matter how well conceived such plans may be (Bovaird, 2008; Westley et al., 2006).

The difficulties that arise for governments in facing complexity are not primarily due to a lack of knowledge or because public servants are somewhat wanting in comparison to their predecessors. They come about because conventional approaches to governance and public administration were not conceived or designed to deal with complexity and uncertainty.

Conventional practice has been to break down difficult undertakings into simpler tasks that can be tackled through specific policies and programmes (Wagenaar, 2007). In the face of complexity, this approach leaves government in a reactive position, unable to detect emerging patterns in an ever-changing landscape and therefore unable to intervene ahead of time.

A different approach is now needed to confront complex issues: one that recognizes complexity to be part of the normal state of affairs (Haynes, 2003).

#### Complex issues and wicked problems

Most problems of public importance are difficult ones. Often, their main difficulty lies in a lack of knowledge, capacity, resources or time to address them. They can be solved incrementally and in a step-by-step fashion by setting priorities that help to remedy some of these deficits.

Some problems are *complicated*. The knowledge needed to address them exists or can be confidently developed, but their size, scope and scale is daunting and the process to produce a successful outcome is intricate and risky. Complicated problems may involve an elaborate web of actions in which every action, along with the sequencing and dependencies between them, is central to success and any misstep can lead to failure.

Complex problems are of a different order. They may display:

- *dynamic complexity* when causes and effects are interdependent but may be far apart in space and time;
- *social complexity* when the facts and the nature of the problem are contested and when positions are entrenched; and
- generative complexity when unique, unforeseen issues emerge with a high potential for recombining in different ways, at different times, in different places and at different intensities and scales (Kahane, 2004).

Complex problems cannot be solved solely by breaking them down into smaller pieces and developing more knowledge about each piece. They can only be addressed by looking at the *whole system* and, thus, require a *systemic* approach (Senge, 1990; Wagenaar, 2007). The problem of deforestation in the Amazon rain forest is an example of a dynamically complex problem that requires a systematic solution.

More knowledge alone may not help to resolve complex problems since the definitions, facts and solutions are highly contested (Haveri, 2006; Kahane, 2004; Koppenjan and Klijn, 2004). Definitions that are *co-created by the relevant parties*, though imperfect, hold the most value because they open up the possibility of concerted actions (Senge, 2004). The processes of reconciliation in post-Apartheid South Africa or post-conflict reconstruction in societies are examples of problems with high social complexity (Kahane, 2004; Westley et al., 2006).

Complex problems cannot be solved simply by replicating what was done before (Kahane, 2004). Even if the situation bears some resemblance to past events, it requires *emergent solutions* that stem from the ongoing interactions between actors and contexts. The challenge for public administrators here is to read the complex landscape, to connect problems, people and solutions in the right contexts (Levinthal and Warglien, 1999), and to unleash the power of networks, self-organization and co-evolution (Duit and Galaz, 2008). Rising sea levels stemming from climate change (see Nicholls et al., 2007) is an example of such a problem.

Wicked problems feature some or all of the characteristics of complex problems along with a high level of uncertainty and unpredictability. Uncertainties stem from the fragmentation of decision-making and the interdependence of actions associated with the problem. Unpredictability arises from unstable relationships between the many variables.

There are and will always be instances where governments are well positioned and well advised to act alone. This is the case when they can frame the issue on their own, when they can act to achieve the desired outcome and when they have a

reasonable understanding of the consequences of their actions. This is not the case with complex issues and wicked problems.

Today, some of the most important problems exceed government's capacity when acting alone; in fact, they exceed the grasp of any single actor. Emergent patterns and trends are difficult to see without the help of others; the risks to be mitigated are too large to shoulder alone.

A range of theories, concepts and tools has been developed since the 1990s to help practitioners face complexity in an uncertain environment (e.g. Gunderson and Holling, 2002; Mitleton-Kelly, 2008; Teisman and Kliin, 2008). But no magic bullet exists (Bovaird, 2008). Public servants will need new skills and must become more adept at reading complex systems. They will need new competencies for connecting different actors, problems and solutions in new ways to achieve the desired public results (Klijn, 2008).

#### Building capacity for anticipation, innovation and adaptation

Successfully confronting complexity and wickedness as part of the reality of public administration will require concerted efforts to build the capacity of government to anticipate, detect and proactively intervene where necessary. It will also entail building the collective capacity for anticipation, innovation and adaptation (see Figure 4).

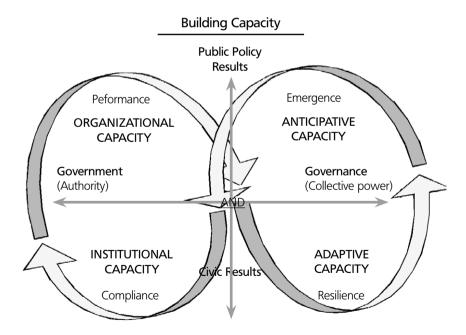


Figure 4 Anticipative and adaptive capacity

#### Anticipative capacity

Uncertainty and unpredictability can be reduced by early detection through scanning or other means and gaining a better understanding of the perspectives of the full range of actors and the relationships between them (Habegger, 2009; Schultz, 2006). Proactive action may improve the probability of more desirable outcomes. Countries with the best capabilities in detecting emerging trends and anticipating significant changes will have an important comparative advantage.

Most governments have developed relatively strong internal policy functions. They are needed to provide sound policy advice that takes into account existing capacity and lessons learned in the past. In general, policy units are departmentally based and mission specific, though there are usually policy functions to address sectoral and cross-cutting issues as well, often located at the centre of government. Both tend to value causal rationality and linear thinking.

Policy units rely heavily on evidence and data — and for good reason — but in the case of complex issues and emergent possibilities, the most important knowledge does not reside in the data. Rather, it is in interpretation and insight, in discerning probable patterns where none had been seen before, and in the meaning extracted from diffuse information and imperfect knowledge (Habegger, 2009).

This work requires a *diversity of perspectives* coming from the interactions with multiple actors, a *diversity of skills* and disciplinary knowledge bases, and a *diversity of approaches* where linear thinking, non-linear systems-thinking and emergent understanding coexist.

Many governments have a long tradition of intelligence gathering, environmental scanning, and scenario planning, modelling and risk assessment (Habegger, 2009). The challenge is to extend this capacity to complex issues and unpredictable environments by giving priority to building the *anticipative capacity* of government. The goal is to allow for more *proactive interventions* to prevent, pre-empt or transform the course of events towards more favourable outcomes. Some countries are already taking ambitious steps in this direction using the work of Habegger (2009). For example, Singapore is using a cross-government approach that marries scenario planning with a risk assessment and horizon scanning system.<sup>5</sup> Various ministries in the United Kingdom have come together to fund and use a 'foresight programme' to conduct 'futures research' in particular sectors such as health, energy and land use.<sup>6</sup> The Finnish parliament has established from among its members a 'Committee for the Future' with a mandate to make submissions on futures-related matters and conduct futures studies.<sup>7</sup>

### Innovative capacity

Approaching public administration as a forum of emergent possibilities encourages administrators to work with others to propose and make 'smart interventions' (Klijn, 2008: 313) that can improve the likelihood of favourable outcomes in dealing with complex policy issues.

In many cases, the best knowledge and the most powerful intelligence about emergent phenomena do not rest with government. They reside in the minds of people living next door or thousands of miles away. They are shaped in and circulate in self-organized networks and in the multiple relationships people have in their local communities or global communities of interest.

To address complex problems and uncertainty, governments need to improve their ability to tap the collective intelligence of citizens and society to extract knowledge and meaning about emerging patterns and trends in the social system. Citizens and other actors have invaluable information and diverse perspectives that can provide foresight, shape decisions and devise innovative solutions (Atlee, 2008; Malone, 2008).

Governments can also take steps to encourage social innovation (Mulgan, 2007). The social *networks* and capabilities of citizens are powerful assets in generating novel solutions and pursuing new courses of action towards social goals (Westley et al., 2006). Government can leverage the power of networks to connect actors, problems and solutions as a means to achieving public results (Klijn, 2008).

These actions can help government advance from a reactive to a more adaptive position by building the innovativeness of societies, citizens, communities and institutions.

#### Adaptive capacity

Notwithstanding the efforts government and citizens make in building their anticipative and innovative capacity for solving public problems, unforeseen events will arise and unpredictable shocks will occur. Government will always be the insurer of last resort when the collective interest is at stake. Recent history shows, for example, with the outbreak of SARS in 2003 and the near-collapse of the global financial system in 2008, that passive approaches to dealing with 'surprises' and emergent public policy issues can impose significant damage and a high cost to society. While governments cannot plan for what they cannot know, they can work proactively to limit the impact of shocks and increase the probability of more favourable outcomes.

The role of government in the twenty-first century extends to building the resilience of their societies to absorb shocks, embrace change and prosper. Ideas about how government can foster resilience have been developing since the 1990s, particularly with respect to crisis management, security and emergency preparedness (e.g. Allenby and Fink, 2005; Hanson and Roberts, 2005; Masten and Obradovic, 2008; Menon, 2005; Norris et al., 2008). The fields of ecology and environmental studies, which have a longer track record of research on resilience, are also good sources of inspiration (e.g. Anderies et al., 2006; Gunderson and Holling, 2002; Holling, 1973, 2001). Promising guidance for public administrators is emerging.

Some shocks can be foreseen, even if only as probabilities. Building resilience entails planning for, preventing and pre-empting these shocks, and identifying and mitigating key vulnerabilities associated with them (Adger, 2006; Berkes, 2007; McManus et al., 2007).

Some shocks cannot be foreseen, prevented or mitigated. Moreover, change is inevitable and can be healthy (Berkes and Folke, 2002), although the benefits and costs can be unevenly distributed (Norris et al., 2008; Scheffer et al., 2002). Attempting to prevent all shocks can create 'brittle' communities, institutions and societies as it undermines the collective capacity to learn and adapt (Comfort, 1994; Gunderson et al., 1995) and delaying change can increase the risk of large-scale crises later (Holling and Meffe, 1996).

The goal for government is not to attempt to predict or control all potential shocks. This would be impossible and counterproductive. Rather, the primary goal is to promote the resilience of society, which means building the collective capacity to learn and adapt and ensuring a more equitable distribution of the risks, in a manner that mitigates the negative impact on society's most vulnerable.

Resilience cannot be achieved by individuals, organizations or governments working alone (McManus et al., 2007). Resilient societies have at least two significant characteristics: (1) an *active citizenry*, comprised of a critical mass of people with the motivation, skills and confidence to take action to meet the needs of their communities, and (2) solid *networks of community groups* with the capability to bring a wide range of people together to identify the community's needs and to mobilize resources in support of common solutions (Dale and Onyx, 2005).

These capabilities develop through experience and practice. A *participatory approach* to public policy decisions and policy implementation is essential in building collective adaptive capacity. Public participation, citizen engagement and shared governance approaches provide powerful *reinforcements* to resilience, particularly if these approaches encourage actions and decision-making at the community level (Lebel et al., 2006). Dealing with issues at local levels also keeps problems from escalating up and across the social system to become crises of great magnitude (Berkes and Folke, 2002).

Resilience and adaptive capacity cannot be bought or wished for when it is most needed. It develops from learned experience and practice (Berkes and Folke, 2002). It grows out of the bonds and relationships built over time among people, organizations, communities and governments that have learned that they can work together and count on each other when they need to. Resilience is based on the stock of trust, mutual understanding, knowledge and know-how that allows people to act, learn, adapt and evolve collectively (Longstaff and Yang, 2008; Murphy, 2007; Newman and Dale, 2005).

Governments can do much to build the adaptive capacity of citizens, communities and themselves, including:

- intervening at the lowest possible scale before issues cascade upwards;
- experimenting and investing in pilot projects at local levels, then scale up where appropriate;
- simulating events that enhance collective learning; and
- accelerating the transfer of knowledge and know-how between actors.

Public administrators can build the adaptive capacity of their organizations by strategically maintaining a level of redundancy and nurturing sources of renewal. They can protect resources for exploration and discovery. They can conserve and build new capacities, such as a policy function that is adept at strategic anticipation, monitoring and dynamic response. They can create 'safe spaces' or incubators that provide hospitable environments for experimentation and innovation. They can embrace diversity in terms of people and functions to provide a broader range of options in the face of adversity.

In confronting and embracing complexity and uncertainty, governments around the world are learning to tap collective intelligence, encourage social innovation and foster resilience. The challenge is to enhance this work, share it and integrate it so as to derive sound principles and effective tools to help public servants produce results of high public value in complex and uncertain policy domains.

### **Concluding thoughts**

It has taken centuries and much sacrifice to build our modern nation-states and a great deal of commitment to build the civil societies that comprise them. Public administration has played an important role in building the institutional and organizational capacities to achieve public results and to serve the collective interest. Practitioners and scholars in public administration have much to be proud of.

The transformation that has taken place in the world since the 1980s, along with recent global crises, signal a need to search for a new balance between market and democracy; between the public and the private interests; between freedom in the private sphere and common responsibility in the collective sphere.

A new balance requires new capacity, new insights and new knowledge that complement what has come before.

As a professional and scholarly endeavour, public administration has a unique internal coherence. It was born out of constitutional law and political science. Over time, it embraced ideas and practices from economics and business management, it integrated knowledge from the organizational sciences and became enriched by ideas from the social sciences.

Public administration must once again explore new frontiers as it begins to integrate ideas from many knowledge domains — from complexity to adaptive systems theories, from collective intelligence to network theories, and from evolutionary biology and ecology to epidemiology and national security. This will provide important insights for the future of public administration and drive the process by which anticipative, innovative and adaptive capacities are developed further. It will also provide insights as to whether and how institutional and organizational capacity-building needs to be reshaped.

Above all, it may be time to rediscover some very old concepts of the public good, collective interests, democracy, civics and citizenship and to explore their meaning in the changing landscape of today's reality.

A unifying framework may be helpful to guide the exploration and interrelationships between old and new ideas. One possibility is the conceptual framework that has been developed as part of an international research programme that the author is currently leading with regard to a 'new synthesis in public administration' (see Figure 5) and which has informed the presentation of ideas in this article.

Ultimately, any exploration on the future of public administration can most effectively be done by practitioners, academics and scholars working together because research and practice are *inseparable parts* of a common enterprise.

### A unifying framework for public administration

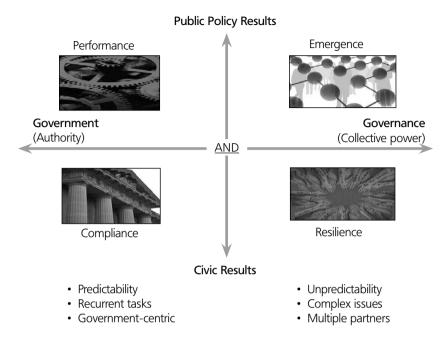


Figure 5 A unifying framework

#### **Notes**

- 1 This research was made possible, in part, through funding from the Centre for International Governance Innovation and the University of Waterloo. The author wishes to acknowledge the contribution of Peter Milley in the preparation of this article.
- **2** See http://www.stiglitz-sen-fitoussi.fr/en/index.htm
- **3** As a caveat to this claim, Pollitt (2006) observes that only a minority of citizens and politicians use performance information of various types to make decisions, and he offers some lines of inquiry and action for remedying this situation.
- 4 See http://www.bcprogressboard.com
- **5** See http://www.rahs.org.sg
- **6** See http://www.foresight.gov.uk/index.asp
- 7 See http://web.eduskunta.fi/Resource.phx/parliament/committees/future.htx

#### References

Adger, W.N. (2006) 'Vulnerability', Global Environmental Change 16: 268–81.

Allenby, B. and Fink, J. (2005) 'Toward Inherently Secure and Resilient Societies', Science 309: 1034–6

Anderies, J.M., Walker, B.H. and Kinzig, A.P. (2006) 'Fifteen Weddings and a Funeral: Case Studies and Resilience-based Management', *Ecology and Society* 11(1), 21–32.

Atlee, T. (2008) 'Co-intelligence, Collective Intelligence, and Conscious Evolution', in M. Tovey (ed.) Collective Intelligence: Creating a Prosperous World at Peace, pp. 5–14. Oakton, VA: Earth Intelligence Network.

- Berkes, F. (2007) 'Understanding Uncertainty and Reducing Vulnerability: Lessons from Resilience Thinking', Natural Hazards 41: 283-95.
- Berkes, F. and Folke, C. (2002) 'Back to the Future: Ecosystem Dynamics and Local Knowledge', in L.H. Gunderson and C.S. Holling (eds) Panarchy: Understanding Transformations in Human and Natural Systems, pp. 121–46. Washington, DC: Island Press.
- Bingham, L.B., Nabatchi, T. and O'Leary, R. (2005) 'The New Governance: Practices and Processes for Stakeholder and Citizen Participation in the Work of Government', Public Administration Review 65(5): 547-58.
- Bouckaert, G. and Halligan, J. (2008) Managing Performance: International Comparisons. New York: Routledge.
- Bourgon, J. (2007) 'Responsive, Responsible and Respected Government: Towards a New Public Administration Theory', International Institute of Administrative Sciences 73(1): 7–26.
- Bourgon, J. (2008a) 'Performance Management: It's the Results that Count', Asian Pacific Journal of Public Administration 30(1): 41-58.
- Bourgon, J. (2008b) 'The Future of Public Service: A Search for a New Balance', Australian Journal of Public Administration 67(4): 390-404.
- Bourgon, J. (2009) 'Why Should Governments Engage Citizens in Service Delivery and Policy Making?', in Organisation for Economic Co-operation and Development (ed.) Focus on Citizens: Public Engagement for Better Policy and Services, pp. 171–177. Paris: OECD. Retrieved 2 January 2009 from: http://www.olis.oecd.org/olis/2008doc.nsf/LinkTo/NT00005FB6?OpenDocument
- Bovaird, T. (2008) 'Emergent Strategic Management and Planning Mechanisms in Complex Adaptive Systems', Public Management Review 10(3): 319-40.
- Comfort. L. (1994) 'Risk and Resilience: Inter-organizational Learning Following the Northridge Earthquake of 17 January 1994', Risk and Resilience 2(3): 157-70.
- Dale, A. and Onyx, J. (2005) A Dynamic Balance: Social Capital and Sustainable Community Development. Vancouver, BC: UBC Press.
- Denhardt, J.V. and Denhardt, R.B. (2003) The New Public Service, Serving, not Steering. Armonk, NY: M.E. Sharpe.
- Duit, A. and Galaz, V. (2008) 'Governance and Complexity Emerging Issues for Governance Theory', Governance: An International Journal of Policy, Administration, and Institutions 3(21):
- Friedman, T.L. (2005) The World is Flat: A Brief History of the 21st Century. New York: Farrar, Straus and Giroux.
- Goldstein, J. (1999) 'Emergence as a Construct: History and Issues', Emergence: Complexity and Organization 1: 49-72.
- Gunderson, L.H. and Holling, C. (eds) (2002) Panarchy: Understanding Transformations in Human and Natural Systems. Washington, DC: Island Press.
- Gunderson, L.H., Holling, C.S. and Light, S.S. (1995) Barriers and Bridges to the Renewal of Ecosystems and Institutions. New York: Columbia University Press.
- Habegger, B. (2009) Horizon Scanning in Government. Zurich: Centre for Security Studies. Retrieved 17 June 2009 from: http://se2.isn.ch/serviceengine/FileContent?serviceID=11&fileid=3D89E3D1 -55A8-8622-F380-69C677A36478&lna=en
- Halligan, J. (2007) 'Reform Design and Performance in Australia and New Zealand', in T. Christensen and P. Laegreid (eds) Transcending New Public Management: the Transformation of Public Sector Reforms, pp. 44-64. Aldershot: Ashgate.
- Hanson, B. and Roberts, L. (2005) 'Resiliency in the Face of Disaster', Science 309: 1029.
- Haveri, A. (2006) 'Complexity in Local Government Change: Limits to Rational Reforming', Public Management Review 1(8): 31-46.
- Haynes, P. (2003) Managing Complexity in the Public Services. Maidenhead: Open University Press. Ho, P. (2008) 'Governance at the Leading Edge: Black Swans, Wild Cards and Wicked Problems', Ethos 4: 74-9.
- Holland, J.H. (1998) Emergence: From Chaos to Order. Reading, MA: Helix Books.
- Holling, C.S. (1973) 'Resilience and Stability of Ecological Systems', Annual Review of Ecology and Systematics 4: 1-23.
- Holling, C.S. (1986) 'Resilience of Ecosystems: Local Surprise and Global Change', in W.C. Clark

- and R.E. Munn (eds) *Sustainable Development of the Biosphere*, pp. 292–317. Cambridge: Cambridge University Press.
- Holling, C.S. (2001) 'Understanding the Complexity of Economic, Ecological, and Social Systems', Ecosystems 4(5): 390–405.
- Holling, C.S. and Meffe, G.K. (1996) 'Command and Control and the Pathology of Natural Resource Management', *Conservation Biology* 10: 328–37.
- Irvin, R. and Stansbury, J. (2004) 'Citizen Participation in Decision Making: Is it Worth the Effort?', Public Administration Review 64(1): 55–65.
- Kahane, A. (2004) Solving Tough Problems: An Open Way of Talking, Listening and Creating New Realities. San Francisco, CA: Berrett-Koehler Publishers.
- Katz, Richard (2009) 'The Japan Fallacy', Foreign Affairs 88(2): 9-14.
- Kernaghan, Kenneth (2009) 'Moving Towards Integrated Public Governance: Improving Service Delivery through Community Engagement', *International Review of Administrative Sciences* 75(2): 239–54.
- Kettl, D. (2002) The Transformation of Governance: Public Administration for Twenty-first Century America. Baltimore, MD: The Johns Hopkins University Press.
- Klijn, E.-H. (2008) 'Complexity Theory and Public Administration: What's New?', *Public Management Review* 10(3): 299–317.
- Klijn, E.-H. and Teisman, G. (2006) 'Complexity Theory and Public Administration: A Critical Appraisal', paper presented at the XI International Research Symposium of Public Management, 2–4 April, University of Potsdam.
- Koppenjan, J. and Klijn, E.-H. (2004) Managing Uncertainties in Networks: A Network Approach to Problem-solving and Decision-making. London: Routledge.
- Lebel, L., Anderies, J.M., Campbell, B., Folke, C., Hatfield-Dodds, S., Hughes, T.P. and Wilson, J. (2006) 'Governance and the Capacity to Manage Resilience in Regional Social-ecological Systems', *Ecology and Society* 11(1): 19–37.
- Lenihan, D., Milloy, J., Fox, G. and Barber, T. (2007) *Progressive Governance for Canadians: What You Need to Know.* Ottawa: Public Policy Forum.
- Levinthal, D.A. and Warglien, M. (1999) 'Landscape Design: Designing for Local Action in Complex Worlds', *Organizational Science* 10(3): 342–57.
- Longstaff, P.H. and Yang, S. (2008) 'Communication Management and Trust: Their Role in Building Resilience to "Surprises" Such as Natural Disasters, Pandemic Flu, and Terrorism', *Ecology and Society* 13(1). Retrieved 21 April 2009 from: http://www.ecologyandsociety.org/vol13/iss1art3/main.html
- Lukensmeyer, C.J. (2007) 'Large-scale Citizen Engagement and the Rebuilding of New Orleans: A Case Study', National Civic Review 96(3): 3–15.
- McManus S., Seville, E., Brundon, D. and Vargo, J. (2007) Resilience Management: A Framework for Assessing and Improving the Resilience of Organizations. Resilient organizations research programme. University of Canterbury, Christchurch, New Zealand. Retrieved 2 January 2009 from: http://www.resorgs.org.nz/pubs.shtml
- Mahbubani, K. (2009) 'The Dangers of Democratic Delusions', *Ethics and International Affairs* 1(23): 19–25
- Malone, T.W. (2008) 'What is Collective Intelligence and What Will We Do About it?', in M. Tovey (ed.) *Collective Intelligence: Creating a Prosperous World at Peace*, pp. 1–4. Oakton, VA: Earth Intelligence Network.
- Masten, A.S. and Obradovic, J. (2008) 'Disaster Preparation and Recovery: Lessons from Research on Resilience in Human Development', *Ecology and Society* 13(1): 9–36.
- Menon, K.U. (2005) 'National Resilience: From Bouncing Back to Prevention', Ethos 11(1): 14–17.
  Mitleton-Kelly, E. (2008) 'Ten Principles of Complexity and Enabling Infrastructures', in E. Mitleton-Kelly (ed.) Complex Systems and Evolutionary Perspectives on Organisations: The Application of Complexity Theory to Organisations, pp. 23–51. Bingley, UK: Emerald Group Publishing
- Morgan, G. (1997) Images of Organization. Thousand Oaks, CA: Sage.
- Mulgan, G. (2007) Social Innovation: What is it, Why it Matters and How it can be Accelerated. Skoll Center for Social Entrepreneurship Working Paper, SAID Business School, University of

- Oxford, 1-51. Retrieved 2 January 2009 from: http://www.youngfoundation.org.uk/files/ images/03 07 What it is SAID .pdf
- Murphy, B.L. (2007) 'Locating Social Capital in Resilient Community-level Emergency Management', Natural Hazards 41: 297-315.
- Newman, L.L. and Dale, A. (2005) 'Network Structure, Diversity, and Proactive Resilience Building: A Response to Tompkins and Adger', Ecology and Society 10(1). Retrieved 24 January 2009 from: http://www.ecologyandsocietv.org/vol10/iss1/resp2
- Nicholls, R.J., Wong, P.P., Burkett, V.R., Codignotto, J.O., Hay, J.E., McLean, R.F, Ragoonaden, S. and Woodroffe, C.D. (2007) 'Coastal Systems and Low-lying Areas', in M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds) Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, pp. 315-56. Cambridge: Cambridge University Press.
- Norris, F., Stevens, S.P., Pfefferbaum, B., Wyche, K.F. and Pfefferbaum, R.L. (2008) 'Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness', American Journal of Community Psychology 41: 127-50.
- Organisation for Economic Co-operation and Development (2008) From Open to Inclusive: Building Citizen-centered Policy and Services. Retrieved 2 January 2009 from: http://www.olis. oecd.org/olis/2008doc.nsf/ENGDATCORPLOOK/NT00000E9A/\$FILE/JT03243619.PDF
- Organisation for Economic Co-operation and Development (2009) Focus on Citizens: Public Engagement for Better Policy and Services. Paris: OECD.
- Perri 6, Leat, D., Seltzer, K. and Stoker, G. (2002) Holistic Governance: The New Reform Agenda. New York: Palgrave.
- Pollitt, Christopher (2003) 'Joined-up Government: A Survey', Political Studies Review 1(1): 34-49.
- Pollitt, C. (2006) 'Performance Information for Democracy: The Missing Link?', Evaluation 12(1): 38-55.
- Pollitt, C. (2007) "Towards a New Public Administration Theory": Some Comments on Jocelyne Bourgon's 5th Braibant Lecture'. International Review of Administrative Sciences 73(1): 37–41.
- Salamon, L. (2002) The Tools of Government: A Guide to the New Governance. Oxford: Oxford University Press.
- Scheffer, M., Westley, F., Brock, W.A. and Holmgren, M. (2002) 'Dynamic Interaction of Societies and Ecosystems — Linking Theories from Ecology, Economy and Sociology', in L.H. Gunderson and C.S. Holling (eds) Panarchy: Understanding Transformations in Human and Natural Systems, pp. 195-239. Washington, DC: Island Press.
- Schultz, W. (2006) 'The Cultural Contradictions of Managing Change: Using Horizon Scanning in an Evidence-based Policy Context', Foresight: The Journal of Future Studies 8(4): 3–12.
- Senge, P. (1990) The Fifth Discipline: The Art and Practice of the Learning Organization. New York: Doubleday.
- Senge, P. (2004) 'Preface', in A. Kahane, Solving Tough Problems: An Open Way of Talking, Listening and Creating New Realities. San Francisco, CA: Berrett-Koehler Publishers.
- Teisman, G.R. and Klijn, E.-H. (2008) 'Complexity Theory and Public Management', Public Management Review 10(3): 287-97.
- Thomas, J.C. (1995) Public Participation in Public Decisions. San Francisco, CA: Jossey-Bass. United Nations (2007) Public Administration and Development. Report of the Secretary-General. Sixty-second session, General Assembly. Retrieved 2 January 2009 from: http://unpan1.un.org/ intradoc/groups/public/documents/un/unpan027432.pdf
- United Nations Economic and Social Affairs (2005) Participatory Planning and Budgeting at the Sub-national Level. New York: United Nations.
- Van Dooren, W., Thijs, N. and Bouckaert, G. (2004) 'Quality Management and the Management of Quality in European Public Administration', in E. Loffler and M. Vintar (eds) Improving the Quality of East and West European Public Services, pp. 91–106. Aldershot: Ashgate.
- Wagenaar, H. (2007) 'Governance, Complexity, and Democratic Participation: How Citizens and Public Officials Harness the Complexities of Neighborhood Decline', American Review of Public Administration 37(1): 17-50.
- Westley, F., Zimmerman, B. and Patton, M. (2006) Getting to Maybe: How the World is Changed. Toronto: Random House.

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World Bank Participation and Civic Engagement Team (2003) Case Study 2 — Porto Alegre, Brazil: Participatory Approaches in Budgeting and Public Expenditure Management. Social Development Notes, 71 (March 2003). Retrieved 3 September 2009 from: http://info.worldbank. org/etools/docs/library/238102/1.1.2%20sdn71.pdf