

**A Gardener Innovator's Guide to Innovating
in Organizations**

by

Eleanor D. Glor

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PREFACE

I have a vision. It is to open up a bigger space within which ideas can be considered and good ones identified. Having done that, it is to help organizations implement more of the good ideas that get generated. Currently, one of the main functions of organizations is to resist change. I believe this must shift. Both people working in organizations and the organizations themselves would benefit greatly if they could innovate when opportunities present themselves, instead of chiefly when they must.

This is a book for innovators and would-be innovators. It is not only for managers, but it is for people who work at all levels within organizations. This book is therefore also for the 98 per cent of would-be innovators who do not sit at the top of the organizational pyramid. It *is* for those who do not have the power to bring their great new idea into being sheerly because they have the authority to do so.

This silent, massive majority of employees has plenty of good ideas. They *do* have trouble getting them implemented. Organizations suffer from the lack of their ideas, but since organizations are insentient, they do not know it. So, it is up to all employees to find better ways to do things. So, whether you are a young employee, a long-term worker, a supervisor, a middle manager, or a senior manager, if you have an idea for how to improve your organization, or if you are just interested in a new way to think about innovation, this book is for you.

For fun, I have called it *A Gardener Innovator's Guide*, because the gardener's experience is much like that of the innovator. She is experimenting, trying out ideas, waiting to see which ideas sprout, attempting to nourish those ideas, and to help them take root.

I am aware of three other guides for innovators. They are Osborne and Plastrik's *Banishing Bureaucracy* (1997), Landry's *Creative Cities* (2000), and Cohen and Eimicke's *Tools for Innovators*. Each suggests an approach to innovation and tools for achieving it. This book is different from those because it not only deals with tools but also with thinking about innovation. It explores two ways to think about innovation in depth, the analytic method (also known as reductionism or simplification) and the whole systems approach, which attempts to understand the whole phenomenon of innovation, rather than its parts. The book offers frameworks and tools for working in each of these modes.

This book will equip you, the gardener innovator who wishes to work within your organization, to think about innovation and to understand innovation patterns when you see them. Such an understanding can equip you not only to be a more effective innovator, but also to see when and how your organization needs to change to become more innovative.

I hope you find these innovation gardener tools helpful. Good innovation gardening!

Eleanor D. Glor
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This is a work that grows out of a lifetime of interest in change—first political change, now organizational change. I have received a great deal of support from many people to reach this point. For support for the work of this book in particular, I would like to thank Howard Doughty.

Introduction

This is a book for innovation gardeners, those who wish to grow more innovation in their organizations. The book considers innovation from two perspectives—that of the single plant (one innovation) and that of the whole garden (organization and society) in which the plant must grow. These approaches are parallel to thinking analytically and holistically. The analytic approach breaks the single innovation down into its components, offering suggestions to individual innovators for how best to practice innovation. The whole systems approach emphasizes the importance of context—historical, social and organizational—and the role of the group and of the organization in innovation. How organizations can encourage innovation is discussed, and the reader is offered a new way of thinking about the patterns of innovation. Suggestions are offered for how to understand and work with the organizational environment.

The Introduction situates the book in my life as an innovator and as an observer of innovation. It defines innovation. The target of the book is the gardener innovator—a sometimes frustrated employee, who wants to contribute, whether front-line worker or manager—who sees a better way to do the work of the organization. The book is relevant to all sectors—governmental, private, and voluntary.

Introduction: About Innovation

Did the old system work? “No.”
Will the new system work better? “No.”

The quote above is a program for inertia. This book is based, instead, on three optimistic ideas. First, it suggests that people—not just “organizations” or management—can and in selected cases should choose to change. Second, I argue that innovation in organizations is not primarily about management imposing choices on their staff. It is not only about staff agreeing to change what they do and how they do them. It is also about staff initiating change. Third, this book contends that a unique thing (an innovation), developed by people being unique (creative), can be understood to occur in patterns. Not only that, but it asserts that by understanding these patterns innovators can put themselves in the position to adjust their behavior accordingly and thus to be more successful with their innovations. This is thus a book for innovators and would-be innovators at all levels of organizations, but especially that most neglected of target groups, innovative non-executives.¹ It is meant to help them be more innovative.

I am an innovator. For the first half of my career, I was mainly involved in the front-line practice and management of innovation; for the second half I have been more involved in reflecting on innovation. As I have explored many aspects of innovation, from the perspective of both the practitioner and the observer of innovation, I have become convinced that organizations can be more innovative. Some of my conclusions I have demonstrated to my satisfaction, others are still intuitions and have not yet been shown to be true in any formal way. Thus the reader will need to exercise his own judgement in applying the suggestions in this guidebook. But a word of encouragement, as well: Few innovators describe themselves as innovative. So, whether you think of yourself as an innovator, or not, this book is for you. Like plants and animals, people and organizations that do not adapt—and that sometimes means innovate—die! Although they are not always well received, innovators play a key role in keeping people and organizations alive and our society adaptive. They push organizations to be concerned not just with the past and present, but also with the future—the near and distant future.

About Me

I have worked for four kinds of public sector organization:

- Municipal government
- Provincial government (two)
- Federal government
- International non-government organization
- Politically, the governments were liberal, conservative, social democratic and neo-liberal.

¹ I consider executives to be those holding the two or three top level positions in an organization. Below those levels are managers, supervisors and front line employees.

Background:

In both the private and public sectors, lip service is now paid to the crucial importance of innovation for organizational success and progress. Despite these assertions, few organizations have developed a systematic strategy and analysis for encouraging innovation. As I observed the impact of four innovations that I implemented, and the policies and processes of generally non-innovative and one very innovative government—the Government of Saskatchewan, I developed concepts and tools to aid understanding and to support innovation. This book brings together these tools for innovators. I call it a *Gardener Innovator's Guide*, because a better understanding of the innovator's garden—of how innovation occurs in organizations, and how organizations follow patterns, will, I expect, help managers and employees to be more effective in introducing positive innovation.

Definitions of Innovation

New:

- Inventing something new
- Generating new ideas only
- Improving something that already exists
- Following the market leader
- Attracting innovative people

Dissemination:

- Performing an existing task in a new way
- Spreading new ideas
- Adopting something that has been successfully tried elsewhere
- Seeing something from a different perspective
- Introducing changes

Source: Lee Zhuang, 1995, Table IV (reorganized, under my titles)

What are the patterns of innovation?

- Looking at the innovation and organization within their context, what are the patterns that innovators and innovations follow in organizations?
- Looked at from a different perspective, what are the patterns that organizations follow when they are innovating?
- Can the patterns help to explain why the same methods and innovations take on different shapes and create different results in different organizations?

Rationale:

Those who wish to teach about innovation or who want to be innovative have available a literature on who has done it and how they have done it. This literature is typically analytic, looking at

phenomena across one or a few examples and drawing lessons learned from them, *or* it is promotional, based on a few presumably ideal cases, with a focus on winning. Often lacking is a description of the environment—the context—within which these innovators functioned; a systematic look at the innovation process, at how the innovators moved from here to there; a sense of where innovation fits into an organization; and an understanding of the individuals who played key roles. How one innovation occurred is often portrayed as teaching universal lessons, but little is learned about how innovation can be encouraged as a regularly-used method for adapting an organization to changing reality. Some of the tools that can support innovation, such as program budgeting, strategic planning and total quality management, have been around for decades. Their role in innovation has been

promoted, but despite assertions and commitments, for the most part, these strategies have been subverted and have not become common practice. Why is that? What are the barriers standing in the way of innovation? How can they be overcome? And, I do not mean by pushing people over the edge! Some people say, among them Everett Rogers, the dean of innovation studies, that innovation creates socioeconomic inequality. It is time to look not just at how to understand and how to do innovation but also at the implications and ethics of innovation.

Canadian Examples of Innovation as Following the Market Leader

- Francis Grafton and James Clepton established the First YMCA in North America in 1847 in Montreal (charter received from the founder, Sir George Williams).
- First working electron microscope in North America developed by University of Toronto professor Eli Franklin Burton and his former students, from plans developed in Europe.

Source: Nader, 1992

Canadian Examples of Seeing Something from a Different Perspective

- Bliss Symbols. In 1971 Shirley McNaughton began to adapt the international language developed by Australian Charles K. Bliss for the disabled. She and a multi-disciplinary team at the Hugh McMillan Centre in Toronto adapted the system for non-speaking people.
- Art Bank. Set up in 1972 by the Canada Council. Buys and rents the artwork of promising young artists. A new way of assisting artists, by purchasing and distributing art works rather than by subsidizing artists.
- The Prison Arts Foundation is the first non-profit organization in the world to promote creative activity programs in prisons and to show prison art in an exhibition that tours country-wide.

Source: Nader, 1992

Consideration of how to deal with the inequality created by innovation provides a transition to consideration not just of what can be controlled about innovation, but also of what cannot be controlled. What are the patterns of innovation?

This book explores how organizations relate to innovation through a systemic analysis of how societies and organizations function, how they create and absorb innovation, what is needed for an organization to create continuous innovation, why some organizations that want to, succeed in creating transformational innovation and others do not, and how to assess the ethics of innovation. The strategies are applicable equally to the private, public and non-profit sectors.

Based on my own experiences, on watching others, and on reading about innovation, public administration, organizational development, psychology, and ethics, I have developed a perspective on how organizations have created innovation. This understanding is shared in this book, from two perspectives, an analytic (simplification, reductionist) perspective and a holistic perspective. Examples are drawn mostly from the public sector, because that is where my own experience lies, but also from the private and non-profit sectors.

The book describes how the individual *gardener* innovator can contribute to the creation of a well-functioning organization by helping it continually adapt to its environment not only through evolutionary but also through

transformational innovation. It identifies key elements for successfully introducing innovation into public, private and non-profit sector organizations. From developing readiness, support, and will, through implementation, evaluation, and learning, this book addresses how to introduce, maintain, learn from and use ethical principles in innovation. Based on patterns of innovation, it identifies the individual, social and immediate (creative, implementation and outcome) challenges specific types of organizations and innovations face. Finally, several tools are offered to assist individual managers, staff and gardeners to judge where they are in the process, whether they have covered all the bases, and the nature of their innovation's pattern of functioning and innovating. A method is presented for assessing whether innovation in an organization is self-balancing and therefore is cancelling itself out, or is self-reinforcing and therefore is creating a virtuous or worse, a vicious cycle.

Because the patterns of innovation outlined here are entirely new, some space is devoted to explaining how they were derived. If you are specifically interested in the tools, and wish to proceed on faith, you may skip chapters 8 and 9, and perhaps return to them later for an explanation.

An Innovator's Guide is aimed at managerial and working-level practitioners, and teachers and students of business management and public administration. Both the practitioner and the student of the private, non-profit and public sectors should find it useful.

What is Innovation?

Many different definitions of innovation are in use - a sampling is outlined in the box two pages back. For some, innovation is any activity which is new for the organization introducing it. Using this definition, the same activity could be an innovation thousands of times, as long as it is new to the organization adopting it. This activity is treated here as innovation dissemination, not innovation. This book focuses instead on the first few times the activity is introduced anywhere or at minimum in a country—thus it is the invention and the first two or three adoptions. These are spotlighted because they are the hardest to accomplish.

Innovators, then, are the group of early adopters in the forefront of change. For purposes of this book, innovation is "the conception and implementation of significant new services,

Canadian Examples of Innovation as Inventing Something New

- IMAX film format developed by Colin Low of the National Film Board.
- Frontier College: students teaching adults as volunteers, 1899.
- Canadarm (remote manipulator system) developed by scientists of the National Research Council.
- Canadian health care system (government-run, nonprofit insurance plan using public funds to pay for a private, comprehensive medical and hospital system developed first by Saskatchewan, disseminated by federal government.
- Slicklicker, best machine for cleanup of oil spills in water, invented by Richard Sewell, Dpt. of National Defense.
- Foremost antipollution car. Developed by University of British Columbia for and won a competition held by the federal Dpt of Transportation and four US institutes of technology in 1972. Design ignored.

Source: Nader, 1992

products, ideas or ways of doing things in order to improve or reform them, and involves taking risks." (Glor, 1997b) An innovative government or organization introduces innovations as an inventor or early adopter many times within a short period of time. In other words, it invents, adopts and disseminates innovations quickly.

The book outlines the process that the innovator follows. It suggests an explanation for why some organizations are innovative and others are laggards. Finally, it offers some tips to innovators who are not working in organizations that optimize innovation.

While a great deal of what is presented in this book is relevant to all sectors, most of the examples and the experiences upon which it is based occurred in the public sector. This book thus partially reverses the typical direction of learning about innovation, where private sector experiences and techniques are applied to the public sector.

Inventions by Federal Government Scientists:

- First geological maps of Canada
- Marquis wheat
- The world's first synthesizer
- The heart pacemaker
- The Ultraviolet (UV) Index
- RADARSAT

Source: Slater, 2001-02.

Section I: What Stands in the Way of Innovation? Preparing a Garden Plan

The starting point for this book is a discussion of the obstacles to innovation. Chapter 1 discusses the most basic of obstacles—the way we think about innovation. It presents two different ways to think about innovation, and hence two different ways of approaching it—analytic and whole systems methods (Glor, 2000a, 2002). Analysis and reductionism were the basis of many scientific advances during the eighteenth and nineteenth centuries. It was also the basic approach of scientific management, Taylorism, and the assembly line. Analytic (or simplification or reductionist) approaches typically break the necessary factors into pieces and attempt to create each piece efficiently or make each piece more efficient, as a way to make a whole process more efficient. Will is about deliberate action and power, which is usually more effective when applied to part of a system rather than the whole. Whole systems processes, on the other hand, are about environment,

Chapter 1 discusses obstacles to innovation from a reductionist and a holistic perspective. The value of thinking about innovation more than one way becomes apparent as the very different views of the world expose themselves, and the importance of issues and factors is revealed as very different.

Chapter 2 addresses the ways in which analysis and the whole systems approach are helpful and when each is appropriate.

within an environment.

circumstance and interaction, and consider an organization in its entirety as a whole system

Chapter 1: Obstacles to Innovation

Introduction

While the private and non-profit sectors spend between them about 65 per cent of gross domestic product in the USA, the public sector disburses approximately 35 per cent. Let us consider the patterns of obstacles to innovation in this important sector. This chapter considers barriers to innovation in two levels of American government and three levels of Canadian government. The nature of these analyses is highlighted.

Obstacles to Innovation in American State and Local Governments

Sandford Borins (1998) identified the immediate obstacles to specific innovations in a group of recognized innovators. In a survey of 217 American state and local innovators selected from the semifinalists for the Ford Foundation-Kennedy School of Government (Harvard University) state and local government innovation award from 1990 to 1994, Borins found three kinds of obstacles stood in the way of implementing innovation—internal obstacles, political obstacles and external obstacles. Internal obstacles consisted primarily of difficulty coordinating, logistics and bureaucratic attitudes.² The main political obstacle was inadequate resources, but legislative and regulatory constraints were also barriers. Finally, external obstacles were mostly external doubts and difficulty reaching target groups.

Barriers to American Government Innovation:

- internal obstacles,
- political obstacles
- external obstacles

Described this way, it appears that obstacles are specific to the innovations. Broader contextual barriers can also inhibit innovation, however. I will present my conclusions about the ways in which contextual variables affect innovation from my own experience.

Obstacles to Innovation in Canadian Federal, Provincial and Municipal Governments³

Each level of government faced unique barriers to innovation.

Barriers to Federal Policy Innovation

The federal government has faced a number of obstacles to innovation:

- *Shared jurisdiction.* Under the constitution the provinces are responsible for health, social services, welfare, education, natural resources and the environment - all important

² In response, three main coordination models were used: program coordinator in a line department, program coordinator in a central agency and interdepartmental committee.

³This section largely summarizes information previously published in Eleanor D. Glor, "Public Sector Innovation in Canada," chapter in Hoffman, Randy, Diane Jurkowski, Victor MacKinnon, Janice Nicholson, James Simeon. 1998. *Public Administration: Canadian Materials*, Third Edition, Toronto: Captus Press, pp. 300-340.

and expensive program areas. For the most part the federal government could only legislate in these areas when it was able to secure the agreement of the provinces to do so. This it was able to achieve in introducing unemployment insurance, which required an amendment to the constitution in 1940, and the Canada Pension Plan (a pension plan for all employed Canadians), hospital insurance and medical insurance during the 1960s. Alone, the provinces lacked the resources to fund these programs in keeping with post-World War II expectations. Thus the provinces had a financial motive to cooperate with initiatives promoted by the federal government that included shared-cost funding. In many cases the provinces also needed national programs to achieve the universal coverage and the magnitude necessary to permit programs to function well, such as in publicly funded health insurance and crop insurance.

- *Facilitator of adoption.* The constitutional requirement for consensus, nonetheless, constrained the number of innovations that were introduced. Many national innovations, like Unemployment Insurance (UI) and the Canada Pension Plan (CPP), required not just consensus but unanimity among the federal government and all the provinces, something very difficult to achieve. The requirement for unanimity had its advantages, however. It proved a useful tool in convincing laggards to adopt innovations. The Government of Canada thus assumed the role of *facilitator of adoption of innovations by laggards*, jurisdictions that lacked either the will or the resources to adopt demonstrated improvements. As part of its unity strategy, the federal government until recently required that most programs, particularly health and social programs, be universal and identical across the country. Important objectives may have been achieved, but this *did not allow local solutions and innovations to bloom*.
- *Primarily a funding role.* Beginning in the 1970s, both the federal and most provincial governments started running budget deficits,⁴ and hence few were in a position to fund many new programs (Alberta and Saskatchewan were the exceptions). Since then the federal government has initiated only a few new national programs, notably child development initiatives. It has relied primarily on short-term developmental funding in order to introduce a large number of programs with targeted to disadvantaged populations. Because of its largely indirect role, the federal government had to leverage its influence. Whether with 50-cent dollars, or free start-up costs, this strategy put pressure on the provinces to shift their funding from existing provincial government programs such as public health and potential new provincial government programs to not-for-profit sector programs.⁵ This was the opportunity cost of these programs. It was, in fact, a form of devolution of services. Unfortunately, the potential for learning implicit in these programs was not widely realized because they were not typically evaluated in a way that allowed governments to conclude whether a non-profit sector-based approach

⁴ Except Alberta and Saskatchewan during the 1970s and early 1980s, and most provinces and the federal government during the late 1990s.

⁵ Alternate service delivery is not, perhaps, as new as we sometimes suggest.

was more successful or more cost-effective than a province or municipality-based approach. It did succeed in creating a major new actor in health and social services, the not-for-profit sector, funded primarily by the federal government on three-year, sometimes renewable grants. The sector was thus fairly malleable to federal government will, or at least was oriented to it. This strategy allowed the federal government direct contact with and a role in goal-setting at the community level. Beginning in about 1990, the federal government began to reduce its contribution to federal-provincial health, social and education programs, and then through Program Review from 1995-98 it also cut community-level programs, thereby reducing federal government ties with communities. Once it had achieved a balanced budget, the federal government faced a large social deficit. It then introduced some innovations, such as child development programs. A largely financial role for the federal government thus had financial flexibility, but it led to inconsistent programming.

- *Politics and ideology.* For twenty years the eleven governments composing the Canadian federation have been split into different ideological camps. At any one time, there have been left-wing governments in one to four provinces, right-wing governments in one to three governments, and a mixture of less polarized, business-oriented Conservative and Liberal governments in five to eight governments. In parallel, the large cities have been seeking more political independence and especially more resources to deal with their substantial responsibilities.
- *Perception of role.* An important barrier was the way in which the federal government saw its own role. For the most part the federal government *did not interpret its role as a policy and program innovator*, but rather as *a consensus builder and preserver of national unity*, because of the threat of Quebec's separation and growing provincial and regional sentiment. The dominant value was survival.
- Even when it came to areas of its own jurisdiction, the federal government had the *largest, most rule-laden bureaucracy* in the country. During much of the 1980s it also had a *government that did not trust its public servants* nor treat them as its partners in serving Canadians. These factors too reduced the innovativeness of the federal government.

Barriers to Federal Policy Innovation

- Facilitated adoption of innovations by laggards by requiring universal programs in order to secure federal funding
- Shared jurisdiction
- Influence based on capacity to fund programs
- Short-term community-based funding
- Politics and ideology
- Did not interpret its role as a policy and program innovator
- Saw primary role as consensus builder and preserver of national unity

Barriers to Provincial Policy Innovation

Although the American innovation literature suggests large state governments are the most innovative (Walker, 1969), Ontario and Quebec, the largest Canadian provinces, were not

the greatest policy innovators (Glor, 1997). Up to 1980, Poel (1976) found the same thing.

- *Long political leadership* was a deterrent to innovation. Ontario had one (Progressive Conservative) government for 42 years, with each leader reelected several times; Quebec has had a Parti Québécois government for half of the last 25 years, with two long-term and two short-term premiers. Saskatchewan, Manitoba and British Columbia each had NDP (social democratic) governments for at least a portion of the period, but interspersed with Conservative governments. Not surprisingly, with their emphasis on change, NDP governments seemed to have been more innovative than Conservative ones, although there also were substantial differences among NDP governments in terms of their innovativeness. The three-term NDP premier of Saskatchewan during the 1970s and the two-term premiers of BC and Manitoba during the 1990s were all recognized as innovative governments. As the dominant ideology has changed, the right-wing provincial governments of Alberta, Ontario and British Columbia now seem the most innovative, because of their commitment to change. As an interesting counterpoint, the Alberta government has been in power for thirty years, and has only had three premiers during that period, while the Ontario government is in its second term and British Columbia government has just been elected.
- Another political factor was the role of a *change of government* and its impact on government policy. In Ontario one party was in power from 1943 to 1985, so it was a mature government. The public service correspondingly did not change much either. The Government of Canada changed briefly in 1979, then had a substantive change in 1984 and again in 1993. Both Ontario and Canada retained *much the same public servants* at the senior level, although the Government of Canada engaged many new young public servants at the junior professional levels during the early 1970s. After many years of Union National (very conservative) governments, the Liberals were elected in Quebec during the early 1960s, as part of a major secularization of Quebec society and government, The Quiet Revolution. Quebec had another consequential change of government in 1976, when the sovereigntist Parti Québécois was elected, subsequently engaging many new public servants, who reflected PQ perspectives. So did the Progressive Conservatives when they assumed power in Ontario in 1995. Bringing in new, young political representatives as well as new public servants, enhanced change and introduction of innovations.
- In addition, *governments varied in their capacity to create and fund innovations*. As they enhanced their own policy, program and financial capacity, Quebec, Alberta, Saskatchewan and a growing number of other *provinces with parties in power different from that federally* were unwilling to take their lead from the federal government, and developed new solutions to their problems. Have-not Saskatchewan's financial situation improved markedly during the early 1970s, as the value of natural resources and

Barriers to Provincial Policy Innovation

- Long political leadership
- Lack of change of government
- Variation in capacity to fund programs

agriculture increased, thus enhancing its capacity to innovate. Over time the provinces learned to look more to the federal government to fund programs only, and less to develop them.

As a consequence, while the federal government played a key role funding demonstration projects and disseminating new programs, these were often not federal government innovations. They had, rather, been *introduced in the provinces first* (e.g. business service centres in New Brunswick) or the initiative had been taken by the provincial government to involve the federal government as funder (e.g. crop insurance and cost-sharing of day care costs through the Canada Assistance Plan by Saskatchewan). Sometimes the federal government approached provinces to demonstrate innovations (e.g. Mincom, Canada's first, pilot guaranteed annual income plan, in Manitoba). The provinces demonstrated the innovations and the federal government played a key role in disseminating them. I have been told⁶ that the federal Department of Finance deliberately chose this role for the federal government, starting in the early 1970s—it was to adopt policies neither early nor late, but in the middle of Canadian governments. In other words, the federal government was not solely driven by external factors or the constitution, but deliberately chose its role in innovation.

Barriers to Municipal Policy Innovation

Where municipalities could not secure funding from other levels of government, as was often the case, their limited and regressive tax base could provide only a partial back-up. Local governments, moreover, were often heavily influenced by local businessmen and developers, who tended not to support expansion of human services. Lack of will and thus funding have often stood in the way of local innovation.

Barriers to Municipal Policy Innovation

- Limited and regressive tax base
- Inadequate funding capacity
- Lack of will

While the barriers to policy innovation in Canadian governments have been somewhat different at different levels of government, the common obstacles have been:

- lack of will due to ideology, lack of change of government and public service, and conceptual barriers,
- lack of resources,
- other priorities,
- constitutional and practice barriers.

Administrative Innovation in Federal, Provincial and Municipal Governments

Much as Borins used an award data base for his study, the major data base on administrative innovations among Canadian governments has been created as a by-product

Barriers to Administrative Innovation

- Contextual barriers
- Top-down and bureaucratic management
- Lack of conditions and systems for innovation

⁶By Barbara Darling, an official of the Department of Finance at the time.

of the Institute of Public Administration of Canada's Innovative Management Award, established in 1989. The list of IPAC innovation award winners reveals some things about hurdles for administrative innovation. As in the USA, as of 2001 large governments were prominent in the list of medalists—notably Ontario, Alberta, Canada, and British Columbia, followed by Quebec. These are the five largest governments in Canada. Therefore, despite a small province's (Saskatchewan's) predominance as a policy innovator in Canada in earlier years, large governments were the most likely to win the IPAC innovative management award. Their portion of the awards is summarized in Table 1a, taken from the more complete Table 1b.

Table 1a: Large Government Award Winners

Government	No. of Medals	No. of Finalists & Medalists	No. of Entries
British Columbia	5	18	13
Alberta	9	14	93
Ontario	10	23	447
Government of Canada	8	25	438
Total Large Governments	32	88	1114
% of Grand Total	64	74.6	69.2
Grand Total	50	118	1609

As with policy innovations, two of the governments identified as introducing the most administrative innovations, Ontario and B.C., were provinces with NDP governments (of a total of three NDP governments during the 1990s). The Quebec Parti Québécois government was until about 1996 a social democratic government as well. Likewise the neo-conservative successor to the NDP government in Ontario and the neo-conservative government of Alberta were recognized as innovators.⁷ Although this evidence is neither comprehensive nor conclusive, what evidence exists points to radical governments being more innovative than the more middle of the road Progressive Conservative and Liberal ones. Having a Liberal or Conservative government could, therefore, be a barrier to innovation.

⁷ Although both have retained the name Progressive Conservative for their parties, they are not Conservative governments. Official party name and ideology no longer align.

Table 1b: IPAC Innovation Award Winners by Level of Government, 1990-2006

Government	1st	2nd	3rd	# Times Medalist	Years a Finalist	# Times Finalist	# Times Recog'd	# Entries
British Columbia	1995 1993 1991		2001* 1992	5	2005, 2003, 2001, 2000, 1999, 1996, 1995, 1994, 1994, 1993, 1992, 1991, 1990	13	18	136
Alberta	2006, 2002, 2001	2005, 1999 1998 1993 1990	1994	9	2004, 2003, 2000, 1999, 1997	5	14	93
Saskatchewan		2002 1995		2	1990	1	3	50
Manitoba	2005			1			1	47
Ontario	1994 1992	1997 1992	2004, 2002 2000 1998 1996 1990	10	2006, 2005, 2003, 2003, 2002, 2002, 1999, 1994, 1992, 1992, 1991, 1990, 1990	13	23	447
Quebec	1996	1994	1991	3	2004, 2000, 1997	3	6	73
New Brunswick			1995	1			1	24
Nova Scotia		2004, 2000		2			2	43
Prince Edward Island				0	1998	1	1	12
Newfoundland			2003	1			1	33
Total Provinces				34		36	70	958**
North West Territories		2006		1	1998 (Nunavut)	1	2	9
Nunavut Territory	2001			1			1	1
Yukon Territroy		2003		1			1	5

A Gardener Innovator's Guide to Innovating in Organizations

Government	1 st	2 nd	3 rd	# Times Medalist	Years a Finalist	# Times Finalist	# Times Recog'd	# Entries
Total Territories	1	2	0	3		1	4	14
Canada	2003, 2000, 1999, 1998	1996	2006, 1997, 1993	8	2006, 2005, 2005, 2004, 2004, 2001, *** 2001*** (HRDC), 1999, 1998, 1995, 1995, 1994, 1993, 1992, 1991, 1991, 1990	17	25	438
Total Canada	4	1	3	8		17	25	438
Montreal	1990			1	2003, 2001, 1997	3	3	
Vancouver	1997			1	2002, 1995	2	2	
Toronto				0	2001, 1991	2	2	
Other Municipal		1991	2005 Longueuil, 1999 Calgary	3	2006 Calgary, 2006 Markham, 2005 St. John's, 2002 Hamilton, 2000 Aylmer, 1994, 1997	7	10	
Total Municipal	2	1	2	5		14	17	199****
Total	18*	16*	16*	50		68	118	1609

* Total awards are different among first, second and third award winners because some years medals were shared.

** Where two or three governments in the categories available in this table were submitted, they were all listed.

More than that were not.

*** Intergovernmental

**** 1999-2006 only

Sources: Glor, 1998a and yearly summaries of IPAC Innovation Award nominees, IPAC. 1990-2006, *Public Sector Management*. Toronto: Institute of Public Administration of Canada. Special thanks to Rosalie McKenzie of IPAC.

While Ontario, Alberta and B.C. won medals consistently throughout the 16 years of the Award, Canada, whose budget is almost twice the size of all provincial governments combined, only won one medal before 1996, a third place (Table 1). At the same time, the federal government was a beehive of change, federal public servants participated actively in the IPAC Innovation Award, submitting entries to the competition more frequently than any other government, and were often finalists. Why should this be? IPAC officials suggested that the federal innovations nominated were generally not as innovative as other medalists' submissions. The federal government tended, for example, to introduce new technology into existing processes, rather than to redesign both its technology and its processes. The introduction of the

paperless Competition Tribunal (see box) is an example.

The federal government introduced a great deal of change and innovated somewhat, but was perhaps not as transformative as the most innovative governments during the 1990s. As with policy innovation, the federal government was an innovator (finalist), but not among the most innovative governments. The federal government perceived itself to be an active innovator, however, as revealed by the large numbers of IPAC nominations it submitted.

A Paperless Court

In moving from a paper-based to an electronic communication system, the Federal Competition Tribunal bought software off the shelf rather than redesigning its processes and having software written to suit the processes. While the change was less innovative, this approach allowed the Tribunal to introduce the changes faster.

Moreover, this federal government pattern may be changing, since the federal government subsequently won first place in the IPAC award three years in a row, 1998-2000, subsequent to the period described above. This may be indicative of a change of pattern in the federal government. It does not contradict the pattern of greater innovativeness in large governments. These types of barriers are contextual.

There are others. Top-down and bureaucratic management strategies and structures led to lack of creativity in dealing with problems and opportunities, and a focus on the urgent and unimportant rather than the long-term and important. Such management structures affected individuals too, often creating extrinsic rather than intrinsic motivation in public service workers.

Another type of contextual barrier has been the general lack of the conditions and systems for innovation. Generally, public services have not been safe environments for innovation. From a systemic perspective, they have lacked systems for innovation and change. This has been true in terms of organizational culture, lack of community (safety) among employees, lack of critical thinking, symbolic barriers, and lack of environmental scanning and networking. From an individual perspective it has meant lack of openness to certain kinds of ideas and lack of intrinsic motivation. The barriers to innovation discussed above and outlined in policy and administrative research (Glor, Appendix II, 1998a) include lack of will, unsupportive culture, lack of resources, poor implementation, poor communication and lack of jurisdiction. Let us consider obstacles to innovation next with a broader lens.

Innovation Dilemmas⁸

Difficulty innovating is not just about barriers, which are often considered areas for management intervention. Especially in the public sector, but in the private and non-profit sectors as well, innovation conflicts with other values. Robert Behn (1997: 4-36) described these as dilemmas. I have organized his dilemmas into three categories (see box). A public service innovator faces many obstacles, challenges and dilemmas. This book addresses these categories

⁸ Some of this information was presented in Eleanor Glor, "Innovation Traps: Risks and Challenges in Thinking About Innovation", *The Innovation Journal*, Vol. 8, No. 3, 2003.

of obstacles as it suggests how innovation can and should be done.

Cultural Dilemmas

Cultural dilemmas are about how things are done in the organization, and what is considered important. Four of Behn's dilemmas can be seen as cultural dilemmas.

Fear of innovation. The belief that government needs more innovation is less a fact than a judgment.

The fire-fighting trap. Innovation is often driven by the need to change, yet innovation is a long-term process. It requires a long-term strategy but the organization must also manage its short-term crises.

Accountability dilemmas. Innovation requires initiative, initiative creates dilemmas of accountability. While innovation requires autonomy, decentralization, risk-taking and unprogrammed tasks, accountability requires predictability, standardization, replicability and stability. Because of this, innovators can border on making policy decisions without authority. Innovators working within rule-obsessed organizations, in particular, risk becoming outlaws—or dissenters, as Frances Horibe (2001) calls them—within the organization. The failure dilemma is based on the reality that many innovations fail. Neither playing fail-safe nor hiding failure makes for an organization that innovates. But who will be accountable for failure in the volcano that is government? The customer dilemma recognizes that placing more emphasis on internal customers (such as staff agencies serving line departments) places less focus on overseers. This is the conflict between line departments' mandate-driven needs and the public's interest in central control.

Paradigm dilemmas. Mental models seriously constrain how creatively we can think about the role and activities of government. Leaders, staff, overseers and stakeholders have mental models. The paradigms of the sociology of change outlined later in this chapter offer some optional mental models.

Challenge Dilemmas

These are factors that are perceived by the individuals and the organization as standing in the way of introducing innovations. Five of Behn's dilemmas can be considered challenges.

The routinization dilemma. In order to rationalize the traditional concept of accountability to elected officials with the vagueness of their laws, government employs rule-based routinization. This approach supports the values of honesty, fairness (consistency), and efficiency, but the public also values high performance, sympathetic responsiveness to the needs of individuals in particular circumstances, and adaptation to changing circumstances. These values are in conflict.

Innovation Dilemmas

Cultural Dilemmas:

- Fear of innovation
- The fire-fighting trap
- Accountability dilemmas
- Paradigm dilemmas

Challenge Dilemmas:

- The routinization dilemma
- The scale dilemma
- The analytical dilemma
- Structural dilemmas
- Replication dilemmas

Motivation Dilemmas:

- Motivational dilemmas

Source: Behn, 1997, using my categories.

The scale dilemma. How much should government improve its performance? Is it willing not only to build on and bolster current methods and dominant ideas and professions, or should it attempt to find new and better approaches that move outside current models and patterns?

The analytical dilemma. How much analysis should go into designing an innovation? Experience with innovations suggests innovators act first, and modify as they go along, rather than considering their options at the beginning of the process. Innovators also tend to imitate other innovators rather than working carefully through their own organizations needs. What is the right balance between analysis and groping along? And how can it be balanced with timing, so that opportunities can be taken up?

Structural dilemmas. Innovations are not only constrained by mental and conceptual frameworks, but also by organizational frameworks. Innovations happen in specific organizations. The *organizational-diversity dilemma* highlights two countervailing tendencies: The more complex the task structure and incentive system in government, the greater the probability that members will conceive of and propose major innovations, but the smaller the proportion of major innovation proposals that will be adopted. Open, collegial and supportive agencies support development of ideas, but uniform, centralized organizations can overwhelm the blockages to adoption. Parallel processes can take the innovation forward somewhat, but is likely to run into problems during the institutionalization phase of the innovation. Using parallel processes too much can lead to the long-term demoralization of those working in the organization, who feel written-off and disempowered. *The federalism dilemma* recognizes that in a federal system decentralization creates diversity and experimentation, but makes adoption of consistent, national programs very difficult (e.g. education), while centralized national policies constrain experimentation (e.g. health). The Medicaid Demonstration Project in Santa Barbara County, California, for example, required a federal waiver and much planning.

Replication dilemmas. A replicator faces many dilemmas: what is the core innovation to copy? What are its essential components? Will it work in a new environment? When is the innovation ready to be disseminated? What has to be done to repeat the success of the initiator? In attempting to respond to this dilemma, a replicator must face the *adaptation dilemma*—faithful copying is silly, the innovation must be adapted to the new environment. But how? What should be changed? Also, according the *organizational-adaptation dilemma*—the organization must adapt to the core features of the innovation. An organization is more likely to replicate an innovation “if its existing routines and culture mesh well with the practices and norms that make the innovation work.” (Behn, 1997:29) On the other hand, if it meshes too well, little change will actually occur. Also, the organizations most in need of innovation are probably the ones least able to make the needed organizational adaptations. In this case the temptation will be to create a new organization, and bypass the existing one. As with the structural dilemmas, this risks problems with institutionalization. The *dissemination dilemma* reflects the questions: what is to be disseminated, and when? If the innovator is proceeding by groping along, the innovation may be constantly changing. If the innovation has not yet proven itself, it may be too soon. Interest from politicians and the media may actually short circuit the original innovation, as well as the disseminated one. Federal money, desirable as it is, can also interfere with development and

dissemination, as it freezes certain approaches, target groups and methods into funding programs. Rapid diffusion can be a problem. The *definitional dilemma* is the risk faced by a replicator that the innovation will be copied too slavishly or that a funding agency or initiator will define the parameters too narrowly, thus discouraging adaptation and groping along. Replication involves two elements: identifying the true core of the innovation, and figuring out how to adapt the non-innovative features to fit the new environment.

Motivational Dilemmas

Behn concentrates on the impact that actions have on motivation, not on the motivational patterns that individuals have adopted, as I do later.

Motivational dilemmas may be the most important. Can—and should—legislators and executives attempt to increase motivation for innovation? The most obvious motivational problem is created by the *media dilemma*. The production biases of the media create a risk for all concerned if the media become interested in the innovation. Media criticism can be the end of an innovation and an innovator. At best, an innovator can attempt to present innovative policies in a palatable form for the media—simple, personal and symbolic. The *reward dilemma* is also important. Should managers offer financial, personal rewards, or merely symbolic, intrinsic rewards that allow the innovator to have a sense of self-accomplishment and recognition from peers? The *elected official dilemma* highlights how—and whether—an innovator can and should attempt to build political support for the innovation.

Innovation Biases

Everett Rogers (1995) has captured several dilemmas inherent in understanding innovation in his description of the biases and problems of innovation studies. They are worth remembering as we attempt to understand innovation. Biases are simplifying suppositions (using the reductionist approach) about complex reality. In the innovation development and research field, four biases and problems are of particular concern: the pro-innovation bias, the individual-blame bias, recall problems, and the tendency toward inequality.

The pro-innovation bias is the implication in diffusion research that an innovation should be diffused and adopted by all members of a social system, that it should be diffused more rapidly, and that the innovation should be neither re-invented nor rejected. Rogers, 1995: 100

The pro-innovation bias (see box) is seldom recognized and is therefore both troublesome and potentially dangerous. The bias leads to the neglect of ignorance of innovation, rejection or discontinuance of innovations, re-invention, and anti-diffusion programs meant to prevent the diffusion of bad innovations such as smoking or crack cocaine. The pro-innovation bias has developed for several reasons: (1) One of the early innovations studied, hybrid corn, had a high relative advantage. Most innovations do not have this kind of advantage, and many people, for their own good, should not adopt them. (2) Much innovation research is funded by

change agencies. Their pro-innovation bias is often accepted by the researchers they sponsor. (3) Innovations that diffuse leave a trail that can be studied; rejected or discontinued innovations do not. It is harder to find them, and people are less willing to talk about them.⁹ As a result of the pro-innovation bias, we fail to learn about important aspects of innovation, and what we do learn is unnecessarily limited. Consequently, we know a great deal more about innovations that diffuse quickly than about innovations that diffuse slowly, about adoption than about rejection, and about continued use than about discontinuance. In other words, we know more about success than failure.

Some strategies for overcoming the innovation bias include: (1) Rather than after-the-fact data gathering, conduct diffusion studies while the diffusion is underway. (2) Take care in questioning and selecting examples. One approach would be to select both successfully and unsuccessfully diffused innovation(s). (3) Understand the point of view of the individual adopter, her perceptions of the innovation and her own situation, problems and needs. Re-invention should be recognized as a way to adapt the innovation to local needs. (4) Understand the broader context in which the innovation is diffusing. (5) Understand the motivations for adopting an innovation. Ask why. Some adopters may not be able to say why, and others may be unwilling to do so. This needs to be probed in depth. Decisions are based on perceptions—this is why the challenge factor is important in the framework for patterns developed in chapter 9. Do not be too rationalistic, and recognize the innovation bias may be there. (Rogers, 1995: 100-114)

The individual-blame bias takes the perspective of the promoters rather than that of the adopters of innovation. The study of innovation could have been called problem-solving or innovation-seeking or evaluation of innovations. Instead it was called by many diffusion of innovation. Often studies of innovation are funded by those who will benefit from it being adopted, like suppliers.

This leads to individual-blame rather than *system-blame* for lack of adoption. Sometimes a social problem is caused by individuals. More often, the causes lie in the larger system of which the individual is a part. If this is the case, individual-level interventions will not be effective. The opposite is of course also true: if the causes lie with individuals, system-level interventions will not be effective.

Individual-blame often leads to the definition of success factors for an innovation that focus on the success or failure of the individual within the system rather than the success or failure of the system. Indicators like formal education, size of operation, income, and mass media exposure tend to individual-blame, while measures like change agent contact with clients

The *individual blame bias* is a tendency for diffusion research to side with the change agencies that promote innovations rather than with the individuals who are potential adopters. *System-blame* is the tendency to hold a system responsible for the problems of individual members of the system. Rogers, 1995: 114-5.

⁹ I have the very same problem in seeking topics for the Innovation Salon, a regular dinner meeting on public sector innovation, and *The Innovation Journal: The Public Sector Innovation Journal* (www.innovation.cc).

and financial assistance tend to system-blame. Rarely is the source or channel of innovations studied for whether it provided adequate information, for whether it promoted appropriate or inappropriate innovations, or for whether it failed to contact less-powerful members of the audience. Late adopters and laggards are most likely to be individually blamed for adopting late or not at all, and for not following the experts' recommendations.

The reasons for individual-blame include: (1) the proponents or researchers accept a definition of the problem from the sponsors, (2) a feeling of powerlessness in relation to the system, and a feeling that it is easier to influence individuals, (3) individuals are often more accessible than are systems, and research tools and experts often focus on individuals. (4) This usually leads to a neglect of the individual's network as an element of study. Even when the individual is the unit of response, network relationships can be the unit of analysis. Communication network analysis is a tool for this approach. Adopters can be asked: From whom did you obtain information that led you to adopt the innovation?

Efforts to overcome the individual-blame bias should include: (1) Using alternatives to individuals as units of analysis. (2) Keeping an open mind about the causes of a problem, at least until exploratory data is available, and guarding against change agencies' definitions of problems. (3) All the participants should be involved, including potential adopters, in the definition of the problem, rather than just those seeking amelioration of the problem. (4) Social and communication structural variables should be included, as well as intra-individual variables. Ask: who owns and controls (a) the research and development system, (b) the communication system that diffuses information about the innovation, and (c) who will benefit from adoption of the innovation? (5) Be aware of the individual-blame bias, and the limitations of the psychological approach. (Rogers, 1995: 114-121)

The recall problem in innovation research presents special problems. Time is the enemy of recall, yet innovations diffuse through time. Most social science research ignores time, but not innovation diffusion research. People's ability to recall is not perfect, and gets worse over time. While much research takes a snapshot of innovation at one point in time, a more productive method for innovation is to create moving pictures of behavior, that can trace sequential flows. Survey research, which is based on snapshot pictures, fails to capture the process involved. If data is only collected at one point in time, it is by necessity based on recall. Better ways to collect information about innovation include field experiments (experiments are conducted under real conditions, and before and after data is collected, usually by survey), panel studies over time, use of archival records, and case studies with data from several respondents. A real weakness of cross-sectional survey data is their inability to answer *why* questions. (Rogers, 1995: 121-125)

Diffusion researchers have tended to ignore the consequences of innovation, and in particular how the socioeconomic benefits of innovation are distributed within a system. When equality has been studied, researchers often found that diffusion of innovations widens the gap between higher and lower status segments of a system, especially in Third World nations, creating *the inequality effect*. Diffusion of innovation in the Third World has been actively studied. The research eventually tried to overcome its contribution to the inequality effect by changing how it studied innovation. This is covered in chapter 6.

The pro-innovation bias and reliance on correlational analysis of survey data often led researchers to ignore issues of causality, or to imply that factors such as large government that correlate with innovativeness also cause it (Rogers, 1995: 121-125). Identifying and exploring the biases, causality and methods moves innovation research in the direction of overcoming the pro-innovation bias, individual-blame assumptions, the recall problem and the inequality effect.

If these obstacles, dilemmas and biases seem insurmountable, they will be. If an innovation champion wants to move ahead despite challenges, what can she do? There is no fast or easy answer to this question. Nor is there one answer. To make this point, and to equip the gardener innovator to innovate, *A Gardener Innovator's Handbook* addresses two approaches to innovation in detail—simplifying, reductionist strategies and holistic, systemic methods.

Conclusion

My research has shown that a number of factors discourage and inhibit policy innovation—in Canadian governments and elsewhere too. Federal government leadership focussed on maintaining national unity. Its approach to unity required universal and identical programs across the country, thus hampering local initiative and innovation to some extent in the more innovative provinces. It sometimes funded demonstration projects of innovations within the provinces, however. The federal government was limited by its shared jurisdiction and the necessity to secure provincial consensus to change major programs. It used its tax base to fund joint programs. This combination of universality of national programs, shared jurisdiction and a willingness to raise taxes favoured dissemination of innovations rather than introduction of inventions. The federal government was also, at times, hampered by a burdensome bureaucratic system.

Municipalities, provinces and the federal government shared many factors that discouraged policy innovation: political disinterest, lack of change of government, little turn-over in public servants, unsupportive relationships (between elected and appointed officials and within the public service), lack of focus on and (especially in the case of small governments) limited capacity to fund innovation. As provinces and large municipalities grew interested in and developed their own policy, program and financial capacity, however, some of them became more innovative. The most consistent policy innovator during the post-World War II social democratic era was the small province of Saskatchewan—the Minnesota of Canada. The most innovative governments during the conservative post-1980 era were Alberta and Ontario, which elected clearly neo-conservative governments.

The large governments in Canada have been recognized as the most innovative managers, through the IPAC award, and have had more central capacity to support management change. The federal government was often an adopter of management innovations, but rarely an inventor. With its well developed communication systems; however, the federal government actively communicated about its innovations through the media and at conferences, and may have given an impression of greater innovativeness than the reality supported.

There are many and varied contextual barriers—ideological, political, systemic, financial, and bureaucratic—to policy innovation in the governments of Canada. The next chapter examines two possible, distinct ways to think about the challenge of becoming more innovative

in government.

Chapter 2: Thinking About Innovation

The world evolves, but the forms in which we apprehend it barely change. Apprehending the world changelessly, we think nothing.

(Translated from French by Jacques Ferron, *Martine Continued*, p. 9 in from Philip Stratford. 1974. *Stories From Quebec*. Toronto: Van Nostrand Reinhold)

Introduction

There is no *correct* way to think about innovation, but there are incorrect ways. Typically, one way is chosen, and all others are ignored. The nature of the paradigm being used is also usually overlooked. The dominant method in the physical and social sciences for the last two hundred years and the private and public sectors for the past thirty years has been *analysis*, also known as reductionism or simplification. Analysis breaks phenomena into parts, studies and solves the problems of the parts and then puts them back together, on the assumption that this amalgamation can explain the whole. It is the basis of the scientific method. This approach to management and innovation suggests change can be managed in stages, and that single factors, like management or leadership, are the keys to solutions. An alternate way to think about innovation is as part of a whole. Innovation is then seen as occurring within a system, contributing to adaptation and change of a whole system. This is a holistic or whole systems approach.

As a way of making the point that there is more than one possible paradigm for addressing innovation, this chapter describes and contrasts two—reductionist and whole systems—approaches to innovation.¹⁰

Analytic Models of Innovation

The concepts of planned change and implementation centre the key factors in the success of innovations at the individual and organizational level. Although the

<p>Analysis is the dominant model for understanding innovation today.</p>
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assumption that innovation and change can be planned eliminates numerous possibilities from the lexicon of change, many authors concentrate on the introduction and implementation of innovation—providing an assessment of how an innovation was introduced, how the decision to approve was taken, and the implementation of the innovation as a process of change within the organization. Osborne and Plastrik in *Banishing Bureaucracy* (1997), for example, follow this approach. Like many authors about innovation today, they focus on examples and lessons

¹⁰ The value of using more than one approach to innovation, and the major distinction between analytic and holistic approaches was introduced in Eleanor D. Glor, Ed. 2000. *Is Innovation a Question of Will or Circumstance? An Exploration of the Innovation Process Through the Lens of the Blakeney Government in Saskatchewan*. Ottawa, Canada: *The Innovation Journal: The Public Sector Innovation Journal* <http://www.innovation.cc> under Books.

learned as the basis of their approach to innovation.¹¹ These innovations are almost never evaluated for effectiveness, especially in the long term.

A move to an emphasis on case studies as the basis for examining innovation and teaching public and business administration has paralleled the introduction of the planned change model. Many case studies of successful innovation were published. Glor (2000a: 9) provided a list of eight examples. Most authors who studied planning and implementation of innovations either highlighted the elements or stages of the process or featured the strategies employed. Again, Glor (2000a: 9) specified several examples of authors who identified the elements of the innovation process in the organization. Following a review of published material from 42 states and a variety of agencies, Grady took an additional step, to suggest that a theory of innovation management was emerging. He posited a quasi-sequential process for innovation development: problem-opportunity identification, innovation origination-development, organizational decision making-choice taking, implementation, and evaluation (Grady, 1992). Based on Rogers' process (1995, chapter 5), Glor also suggested a sequential process (Glor, 1997b, 1998a).¹²

Most of these studies drew lessons from their experience. A study of the Minnesota STEP program, for instance, identified six key processes in government innovation (see box). Aucoin and Savoie's (1998) assessment of the federal government's 1995-97 Program Review and Ingstrup and Crookall's (1998) review of well performing organizations also identified lessons learned (see below). Osborne and Plastrik denied there was one identifiable process, but also concentrated on lessons learned. With a note of restraint, Golembiewski and Sun (1991) observed that the planned change literature prescribed numerous general guides for practice, but that there was still a lack of knowledge about the specific features of situations that led to high success rates.

Six key processes in the Minnesota STEP program:

- closeness to the customer,
- employee participation,
- managerial discretion,
- partnerships,
- productivity improvement,
- work measurement

Hale and Williams, 1989, p. 33.

The prescriptiveness of these case studies is based on some implicit assumptions: first, that the essence of what happened had been captured; second, that what happened in governments could be controlled by managers; and third, that these innovations could be replicated in other situations. The approach assumes there is causation and that the causes have been identified—it is voluntaristic and reductionist.

¹¹ In doing so, they recognize that they have not followed the scientific method, which requires a null hypothesis, and the testing of data against it. Consequently, they cannot draw any valid conclusions. They and others imply that they can, however.

¹² This approach has been largely paralleled in the private sector in the field of product innovation.

Planning

Strategic planning involves planned change and is also voluntary. Ole Ingstrup and Paul Crookall in *The Three Pillars of Public Management: Secrets of Sustained Success* did a survey of public organizations world-wide, asking those surveyed to identify two or three sustained, well-performing organizations within their public services that have performed at a high level over an extended period (6-10 years) and that are

significant contributors to the public service. They included Saskatchewan Transportation and Highways in the list—Saskatchewan Transportation was identified as an innovator in an earlier era as well (Glor, 2000a). They highlighted both strategic planning and change management.

A study of Program Review, the federal government's massive program review and budget cutting exercise of 1994-98, was treated as a strategic planning exercise by Aucoin and Savoie in *Managing Strategic Change* (1998: 273-289). The study drew lessons from the experience of individual departments and identified key elements of successful management of strategic change. Effective change required that the objectives of change be framed so that those at the strategic apex can identify priorities with respect to the way in which change is meant to unfold. There must be a commitment to going beyond incrementalism and instruments for facilitating the promotion of strategic rather than incremental change. Those most affected by the change must at some point buy into both the process and the intended results. Achieving change will be influenced by the degree to which an organization has prepared itself for change through planning. Choice and will are considered essential to their concept of strategic planning.

These studies treated the innovations and change as planned strategic change. In the extreme, planned change would be seen as creating a smooth transition from a previous strategic vision to a future desired state.

This extreme and probably unattainable view is ... the basic principle underlying a considerable amount of change theory and technique, much of which can be found in

examples from the North American literature on organization theory and organizational change. (Wilson, 1992: 27)

Wilson concluded that there are three elements to the concept of planned change (see box). Strategic change thus varies from psychological models through organizational development and includes programmed packages such as total quality management and management training.

Several specific phenomena have been associated with the concept of planned

The Three Pillars of Public Management

- aim—mission, leadership and accountability;
- character—people, communication and trust; and
- execution—management tools and change management.

Ingstrup and Crookall (1998: 8-13).

Elements of planned change:

- Managerial voluntarism, the idea that managers have choices;
- Management theory, focused on behavioral issues, not for example, the role of intellect, ethics and aesthetics;
- Planned strategic change, a smooth transition from a previously articulated strategic vision towards a future desired state.

Wilson, 1992.

change. Close links have been created between academia and government/business. Human resource management has emerged as a field of its own. Management training has been introduced, involving the notion of predetermined competencies. Overall the marker of planned change has been certainty about what motivates people, how they should be dealt with and trained, and what results are appropriate and will be achieved using these tools.

Practitioners and theorists have taken a comprehensive range of approaches to planned change, involving the behavioral, the structural and the cultural aspects of life. The levels of analysis used have included organizational behavior, organizational analysis (emphasizing processes) and organizational theory, including the notion that change is not a fact but a perceptual phenomenon. Proponents have suggested change could be brought about by changing the behavior of individuals, improving the analytical ability of individuals, and creating organizational fit.

In 1911 Frederick Taylor introduced the concept of scientific management and the idea that there is one best way of organizing an activity. He created efficiency-based routines that became the basis of most manufacturing production and especially assembly-line manufacturing, and government and private sector bureaucracies. Today the notion that there is one best way to organize has again been introduced, now concerned with the structure, processes and culture of organizations. This way is seen to be applicable to all kinds of organizational activity—private sector, governmental and non-profit sector. This one best way is currently the enterprise culture. It involves team-based cultures to foster innovation and entrepreneurialism, adoption of best practices, and increased faith in consultants, change agents and gurus of organizational change. Wilson (1992) noted the ideological intensity of the enterprise culture.

Implementation: Internal Management Correlates of Innovation

Several authors have attempted to identify the one best way to administer innovation. Yin *et. al.* (1977) identified administrative correlates of innovation, derived from a study of 140 case studies of technical innovations. He suggested that key correlates of innovation were time pressures, personal and organizational objectives being closely aligned, institutionalization of innovative policies, the number of decision points required to approve the innovation, and the degree of professional organization, among others. Grady (1992) recognized some of the same correlates, but also communication channels, reward structure, use of a quasi-sequential process, the central role of management in fostering innovation, politicians and agency heads as initiators, and comprehensive planning. Rogers and Kim (1985) focussed on some of these elements, plus the innovation, members of a social system, and incremental innovation. I outlined the correlates of innovation identified by a number of authors in *Is Innovation a Question of Will or Circumstance* (2000a, Table 1, p. 12).

These authors highlighted strategies and approaches internal to the organization. Often they distinguished correlates of innovation, including process correlates, based on individual case studies. They attempted to identify the factors that made

Correlates of Innovation

Thirty keys to success were identified in eight articles alone, and the list grows longer with each case study published.

innovation possible, more likely, and more successful. These authors took a descriptive and prescriptive approach to the correlates of innovation.

Several authors have taken more cross-sectional approaches. Sandford Borins (1994-95) and Glor (1997b, 1998a), have both studied cases of innovation cross-sectionally, using the Institute of Public Administration of Canada (IPAC) Innovation Award nominee and award winners data base. As mentioned in the Introduction, Borins (1998) also surveyed in more detail the internal innovation processes of 217 American state and local innovators, the semifinalists for the Ford Foundation-Kennedy School of Government state and local government innovation awards program from 1990 to 1994. Among other topics, he identified the primary means of initiation and coordination, and results. Borins found that innovations were most likely to be initiated, in descending order, by public servants outside the unit involved, agency heads, politicians and interest groups/non-profit organizations. About 60% of the innovations were created without formal coordination, that is, usually by a line operation in a single organization. The survey also asked the semifinalists to provide the results of at least two indicators of their choice for the results of the innovation. (Borins, 1998). Governments were not compared for their innovativeness, however.

Like Borins, the authors of the book I edited, *Is Innovation a Question of Will or Circumstance?* appraised the role of stakeholders, bureaucratic attitudes, resources, coordination and results. The hypothesis that creating the internal organizational correlates of innovation was the major factor in understanding the Saskatchewan process was explored, by considering the relevance of and whether the variables identified in other studies were applied in the Saskatchewan environment of the 1970s.

Reductionism and Innovation

While study of innovation prior to the 1970s focussed on determinants of change, during the 1980s and 1990s study of innovation shifted to an emphasis on internal

organizational processes. Early proponents of the approach were Rogers and Kim (1985, pp. 86-87, 96-97), who recommended that researchers spotlight internal processes and case studies. These reductionist approaches had their advantages, and provided clear direction to practitioners.

The literature on innovation has paralleled the literature on management and organizational change.

Whole Systems versus Deterministic Models of Innovation

Wilson (1992) suggested that the norm that change should occur and that it can be directed and controlled can be viewed either as broadly correct or as *authentic jargon*. Which it is considered to be depends on whether you support the evidence that

change is a planned process amenable to being directed by management technique and action, or alternately, the counter-evidence that change is an emergent process. The business cycle is an

An emergent or deterministic theory suggests that outcomes have causes that are not merely the consequence of the actions of the people trying to make them happen.

example of a deterministic¹³ concept. The deterministic approach in government is built on the theme that empowering managers to plan for change ignores the impact of wider and more important forces that lie largely outside the organization. The theory that innovation is emergent holds that innovation develops because of fundamental characteristics of the government, its society and history, and its social and political processes. Emergent understanding is evident, for example, in traits, open systems, and life cycle models.

Innovativeness as a Government Trait: the Organizational Variance Model

One theory of innovation as emergent is based on the idea that innovators have specific traits that are not tied to forms. If behavior is primarily the product of a disposition, then actions should be discernibly consistent across situations and over time (Bandura, 1986). Trait theory can be applied to individuals or to organizations, whose activities are determined by people. I will pick up on this theme again in section III when I discuss the importance of individual motivation and organizational and societal culture in determining innovation and organizational patterns.

Study of the dissemination of innovations has been used as a technique for understanding variance in the trait of organizational innovativeness. This method compares governments for whether and how early an innovation was adopted and what determined that response—for specific innovations and across many innovations. Through this analysis initiators and early adopting governments are identified as having the trait of innovativeness. The governments' and provinces'/states' characteristics are then compared in an effort to determine why they had or had not been innovative.

Trait theory suggests that human actions are demarcated by traits, regarded as broad enduring dispositions to behave in specific ways.

The variance model for studying the innovation process was dominant in the 1960s and 1970s (Mohr, 1978). The tools used were variables and their associations, typically analysed quantitatively (Rogers and Kim, 1985: 97). Often relationships were determined through factor analysis to identify the contribution that different variables made to explaining the innovation phenomenon. Governments were compared to each other for how quickly they adopted policy, administrative and process innovations. Early adopters across a range of innovations were considered to have the trait of innovativeness. (Walker, 1969; Gray, 1973) The determinants suggested for why these governments were innovative included region, population size, urban/rural character and dominant political party.

The seminal work on the trait of innovativeness was done by Mohr (1969), Walker

¹³ Determinism is the doctrine that human actions and all events are the necessary results of antecedent causes (Thorndike Barnhart Comprehensive Desk Dictionary). While the argument made in this book is *not* that current events *had* to happen because of what came before—I decidedly support the theory of free will, that people can change patterns—nonetheless, what came before has a big impact on what happens today.

(1969) and Gray (1973). They studied adoption of innovations by American states and, in the case of Mohr, the province of Ontario, concluding that large governments were more likely to be innovative. Using a similar methodology, Poel (1976) studied the patterns of innovation among Canadian governments. Light (1978) criticized the methodology used by Walker and Gray on three bases: sampling problems, substantiveness of the dimensions identified, and temporal variability—Walker covered 96 years, while Gray covered more than 185 years in her study. Unlike Walker, who suggested innovativeness was a pervasive factor or trait, Gray (1973) suggested innovativeness was issue-and-time specific at best. A fundamental difference of opinion about whether the trait existed was thus introduced into the debate.

Robert Savage (1978) created a new methodology for indexing innovativeness. Based on how quickly American states adopted 181 new policies, he broke time down into three periods. Savage found a tendency for idiosyncratic states to become less so over time and predicted the more laggardly would become more innovative over time. He found three states that were consistently innovative, however—California, Minnesota and Ohio—defined as being in the top quartile across all three time periods. Another nine states consistently scored in the top half. Four were consistently laggards and seven were in the lower half all of the time.

Rather than what Savage predicted, the innovative states became more innovative over time, and the laggards became more laggardly. The patterns became more exaggerated, not less. Savage also found shared regional responses to innovations—pro and con. Unlike Light and Gray, he suggested there *is* a general governmental innovativeness trait. (Savage, 1978: 214-216).

The classic theory of determinants was applied to the study of innovation in organizations in the late 1960s and the early 1970s (Rogers and Kim 1985). Trait research was found to be too oriented to the role of the individual, typically the chief executive officer. Subsequent research focused on organizational structural variables such as communication channels but these dimensions did not co-vary extensively with the variable of innovativeness (Rogers and Kim, 1985). Eventually those concerned with innovation concluded that the correlates or trait approach was not sufficient.

The variance model has been the chief means of exploring innovativeness as a trait of governments, and its determinants. It focuses on divergence.

Implementation as an Open Systems Process

An alternate strategy for study of innovation treats innovation as emergent, and governments as open systems, influenced by their environments and influencing those environments. Open systems have a number of characteristics. They are defined by equifinality, since choices are available concerning the design of internal organization. An important implication of this approach is that there is no one best way.

Characteristics of Open Systems:

- Equifinality. Choices are available concerning the design of internal organization. There is no one best way.
- Negative entropy: The predisposition to decay and disintegrate can be halted, and sometimes reversed.
- A steady state, but rarely equilibrium.
- The system changes in cycles and patterns.

Open systems possess negative entropy: The predisposition to decay and disintegrate can be halted, and sometimes reversed. There is a steady state, but rarely equilibrium. The system changes in cycles and patterns; therefore, concepts like reciprocal, cyclical, single-loop, interacting loops, and tangential factors are useful. As a consequence of these characteristics, variance within an organization can be explained by factors outside the system and comparative studies are much easier to do. Study of systems, especially complex systems emphasizes convergence.

Process Model (Systems Analysis). The process model, as Wilson defines it, examines critically the context, antecedents, movement and history of changes, keeping an analytical eye on the organization theories-in-use that inform such an analysis. The examination of context is a large undertaking that requires a synthesis of understanding of the environment, apprehension and characterization of strategic decision-making processes, and characterization of transformation and change in specific organizations (Wilson, 1992, chapter 4). Unlike voluntary models, a process model does not see implementation of change as the key problem, but rather regards the understanding of how change can occur or did occur as the key issue. An advantage of process models is their capacity to recognize time as a factor.

Population Ecology Model. The population ecology model is built on an analogy with nature—an organization is seen as one member of a set of similar organizations, the population. Organizational change and survival are an ecological process in which demands from the environment can result in the demise of weaker organizations and select out stronger, more dominant organizational forms. Three processes are at work: the creation or birth of new organizations, the disappearance of existing organizations, and the transformation of existing organizations into new forms.

Environmental niches and organizational strategies are key concepts of the ecological approach. In environmental niches strategic change processes are aimed at achieving and sustaining a position within the general population of organizations, for example, federal-state governments or political parties. Niches represent the constellation of resources that support or inhibit organizational change (Wilson, 1992, p. 44). Niche width is determined by the

combination of general resources and factors specific to a sector such as business cycles, rates of innovation, union policies, the economy, and government policies, regulations and fiscal trends.

Populations exist within each type of niche, for example the strategic groups of Porter (1980) that tend to adopt the same strategies. Organizations that operate in similar (business) sectors frequently adopt the same strategies, also known as recipes (Grinyer and Spender, 1979). Populations of organizations with a broad environmental niche are generalists. They can transform or reproduce themselves with relative ease. Specialist organizations have a narrow niche, and perform best in environments that are stable or change slowly and predictably. They

Key Concepts of the ecological approach

- Environmental niches & niche width
- Populations
- Generalist and specialist organizations
- Organizational strategies
- Recipes
- Equilibrium and disequilibrium
- Evolution and cycles
- Incremental and transformational change

have specific resource requirements and serve tightly defined markets. They can build flexibility into their structures.

The pursuit of particular strategies by some organizations which differ from sector recipes can temporarily upset the equilibrium of the wider open system: for example more efficient use of the existing resource base, acting on new information, strategies based on culture—a mix of structure, processes and people—or new technologies. This creates temporary disequilibrium. It also causes the organization to focus on certain issues, such as management of organizational culture and the search for and adoption of new technologies.

An example of a population ecology approach is that used by George Ainsworth-Land. He recognized that evolution and human change follow similar patterns, and suggested that innovation creates both incremental and transformational change.

(A)n important principle of transformation theory (is) when two or more opposing arguments are presented, both or all are correct—in part." (Ainsworth-Land, 1986: xi, xi)
Ainsworth-Land describes his book as being about cycles of growth, evolution, and change.

Life Cycle Analyses. The life cycle analysis is focused on the deterministic potency of organizational age and development over time. Change is a transitional concept, only understandable over time. Most theories do not deal with time as a factor—a major weakness, so this is a strength of a life cycle approach. At its most extreme, this perspective argues that organizations adopt evolutionary, incremental strategies of change in times of stability and revolutionary change strategies between historical periods.

What is the life cycle? It is birth, transformation and death of organizations. Each stage provides the context for particular change strategies. The life cycle can be viewed as the deterministic process of bureaucratization as organizations grow. A typical life cycle pattern consists of four stages: the entrepreneurial, collective, formalization and elaboration (strategic change) stages (see box). Glor (2000a, Chapter 10) considered the Saskatchewan innovation process from the process model, population ecology and life cycle perspectives.

Life Cycle Pattern of Innovation

Entrepreneurial stage: The first task is to manufacture a product or provide a service.

The key issue is survival.

Collective stage: The organization begins to take shape. Professional managers are recruited, departments and functions begin to be defined. The organization has begun to establish its position, internal tasks are allocated and who has responsibility and autonomy to carry them out becomes pre-eminent. Division of labor is established.

Formalization stage: Systems of communication and control become more formal, there is a need to differentiate between tasks of top and lower-level management; systems of coordination and control emerge.

Elaboration stage (strategic change): This stage requires learning of new skills to achieve change, and may include rapid turnover of managers.

Conclusion

Two lenses for looking at innovation have been suggested in chapter 2, along one axis.

A Gardener Innovator's Guide to Innovating in Organizations

An emphasis on voluntarism, planning and implementation—free will—are at one end, and an accent on determinism, emergence and process at the other. The innovation process is considered in more depth in section II through the voluntaristic prism and in section III through the deterministic prism. The working assumption in *A Gardener Innovator's Guide* is that we do not know if there is one best way to understand innovation, and so both approaches are considered—voluntary and determined. *A Gardener Innovator's Guide* looks at the innovation process from each perspective without ruling out the other by definition. This approach is used as a strategy for answering a complex, methodologically difficult and as yet unanswered question—how can one understand and manage the way organizations create something unique like an innovation? This examination does not imply, however, that one approach is better or that one must be chosen. It seeks to demonstrate, rather, that there is not one correct approach. It is also presented with the intent to increase the range of concepts and tools available to innovators.

Section II: Single-Innovation Strategies for Creating Innovation: One Plant, One Innovation, One Element at a Time

What Supports Innovation?

In the previous section, some barriers to innovation in governments have been explored and the innovation patterns created and adopted by Canadian governments have been identified. On the assumption that innovation can be broken down into small, comprehensible, manageable pieces, strategies that could encourage innovation are examined in Section II. It addresses: What enhances innovation and helps it succeed? What could be done to help develop continuous innovation?

Saskatchewan is the home of *the Saskatchewan experiment*. It has stood out in the Canadian context as a strong *policy innovator* during the 1940s, 1950s and then again during the 1970s. Suffering very difficult economic times leading up to these periods of innovation, it elected social democratic (CCF/NDP) governments, with reform focuses. These governments made deliberate, planned efforts to create new solutions to long-standing, often systemic, problems such as monopolistic transportation and financial systems, and marketing of produce. A mentality promoting change had developed in their populations, and was reflected both in their election of an innovative political party and in the recruitment of creative public servants. A similar pattern of popular dissatisfaction, the election of a more radical government, followed by innovation, occurred during the 1990s in Alberta, where the Progressive Conservatives remained in power, but new party leadership moved it toward populist neo-liberalism, and in Ontario where first an NDP, then immediately afterward, a neo-liberal Conservative party was elected. One important difference between Saskatchewan and Alberta/Ontario is that Saskatchewan is a poor province, and might be expected to choose radical solutions, while Alberta and Ontario are the two richest provinces in Canada.

Why were these apparently different provinces able to become innovative? Glor (1997b) identified five factors as essential to the capacity of the Saskatchewan Blakeney government to produce and implement innovative policies: developing public acceptance, readiness, commitment, excellent management, and a focus on results (Glor, 1997b). These factors had to be created in the other innovative provinces as well.

If popular dissatisfaction, radical politics, and new leadership encouraged policy innovation, what can encourage *administrative innovation*? Basing his conclusions on the Institute of Public Administration of Canada (IPAC) management award results, Borins suggested that pressure from outside factors had been the major motivator, including political mandate or pressure; consumer, employee or other stakeholder dissatisfaction; new leadership; an organization unable to meet demands for its services; a changing environment in which inertia had become dysfunctional; financial or resource constraints; failure to understand or reach markets; crises or visible failures; new technology creating new opportunities; and failure to coordinate policies and practices (Borins, 1994). The factors leading to administrative innovation were thus not much different from those leading to policy innovation.

Section II examines the innovation process in terms of six crucial factors—the five steps identified above (developing public acceptance, readiness, commitment, excellent management,

and a focus on results), plus the creation of ethical innovation. A clear set of guiding ethics is important in innovation, because its most natural pattern is to enhance inequality (Rogers, 1995, chapter 11).

Section II also discusses whether the strategies suggested can create the elements and approaches that can lead to continuous rather than the more frequent episodic innovation. Most societies and organizations have treated innovation as an infrequent response to emergencies, employed only when necessary, as opposed to considering innovation a crucial, regular systemic function. Section II offers a strategy for implementing the stages of innovation and identifies appropriate strategies for an organization to use that wants to get serious about innovation—to create long-lasting and ongoing innovation. Rather than being short-term and exploitive, the perspectives are long-term and cooperative.

Each chapter includes a checklist addressing the factors discussed in that chapter, for use by supervisors, managers, and project leaders contemplating or implementing innovation or wishing to manage a project in a way that will enhance innovation. The check-lists give the gardener innovator tools for thinking about innovation, assessing organizational receptivity and evaluating progress with innovation. Its purpose is to alert and guide the innovator in confronting issues that are key to successful innovation. By offering an opportunity to examine innovation in her organization, it helps her to assess her organization's receptivity to innovation, and reminds her about good project management processes.

Section II thus takes an analytic and will-based approach. It asks how managers and employees of organizations can deliberately work together to create the change that they want. It outlines strategies and tools that innovators can use to create innovation. During the writing of this book, governments and enterprises have lived with a crisis mentality during the early and mid 1990s, some relaxation of pressure during the late 1990s, and renewed economic and security crises during the early 2000s. Here are some ways to think about creating a responsive and active, not a reactive, future. Following Section II's reductionist approach to innovation, section III considers innovation from the perspective of the whole organization and groups.

Chapter 3 considers how an organization can build the capacity to act by developing support for change, being ready and considering people. **Chapter 4**, looking at innovation as a function of management and leadership, considers how to implement quickly, focus on results, and learn from experience. **Chapter 5** discusses the why of innovation, and how to deal with its ethics. **Chapter 6** considers the other half of innovations, the ones that do not happen because of leadership and management, but because of bottom-up efforts to make improvements. The crucial factor here is employee empowerment. **Chapter 7** concludes the section by making the case that innovation is about individual commitment.

Chapter 3: Build the Capacity to Act: Be Ready, Negotiate Approval

Introduction

Developing readiness for change can be considered as either a simple or a complex activity. In chapter 3 it is examined as a simple process. This chapter looks at the issue of building capacity to act from two main perspectives, that of the innovation process and that of people—the population, leaders and employees.¹⁴

Understanding the Managed Innovation Process

Understanding the barriers to innovation outlined in Section I permits perception of the processes needed to support it. Based on numerous experiences and authors (e.g. Glor, Rogers), the innovation process can be seen as involving five stages (see box). Readiness must be achieved by a large portion of the people directly and indirectly involved—the public affected, managers and staff. Readiness is achieved through conceptualization, the coupling of new with existing ideas to create an innovation. Approval and implementation involve promotion and change management, while learning fosters a climate permitting current and future innovation.

The Innovation Process

- readiness
- negotiating approval
- effective implementation
- achieving results
- learning.

Readiness involves the creation of a climate in the societal or organizational population that favors innovation and that supports individuals to be creative alone or in groups. It is reinforced by ensuring that personal and organizational interests are aligned, by using organizational conflict to stimulate creativity, and by encouraging non-routine thinking. Introducing variety through the composition of the group stimulates expression of different perspectives. An environment of trust encourages openness. This stage needs creators. Creativity can be enhanced or reduced, depending on the approach taken to defining the problem(s) and developing solution(s). An emphasis on "paradigm busting" helps. Risk can be reduced and momentum built by developing and implementing small-scale models.

Negotiating approval, the second stage, is tricky for an innovator. Securing approval for broad and substantial innovations requires a champion and direct contact with the minister of the

¹⁴ Many of the ideas outlined in chapters 3 and 4 were initially presented in Eleanor D. Glor, ed., *Policy Innovation in the Saskatchewan Public Sector*, 1971-82, Toronto: Captus Press, 1997; "Encouraging Public Sector Innovation," *Optimum, The Journal of Public Sector Management*, Vol. 27-2, 1997, pp. 41-48; "What Do We Know About Enhancing Creativity and Innovation? A Review of Literature," *The Innovation Journal*, Vol. 3(1), 1998., <http://www.innovation.cc> under Peer- reviewed section; "An Innovative Manager's Check-List." *The Innovation Journal: The Public Sector Innovation Journal*, Vol. 6(2), 2001; "Ideas for enhancing employee empowerment in the government of Canada." *Optimum, The Journal of Public Sector Management*, Vol. 30(3-4), 2001, pp.14-26.

department. Because innovation involves risk-taking, methods to reduce risk are appropriate if they do not hinder the innovation. Strategic and business planning can help if they are not used as a way to exclude ideas. Full-scale pilot and demonstration projects demonstrate the potential for success and point out the problems. Though they risk loss of an opportunity, pilots and demonstrations contribute to building momentum, as does active communication about the innovation.

Effective implementation requires change managers who develop planned change strategies; consider explicitly how the innovation will be introduced; and develop implementation, human resource and communication strategies. This stage must develop the behavioral patterns that will institutionalize the new policies and zoom in on results. There will be many small failures along the way, so tolerance for failure and tenacity to hold out for eventual success are key.

A focus on results, the fourth stage, provides a mechanism for testing the innovation. It requires not only success on formal evaluations but also the creation of favorable results for both the government and the public service.

Learning from the innovation, feedback and mistakes goes a long way toward building a climate favorable to innovation, and may point to the next innovation. Punishing failure, on the other hand, is certain to kill interest in innovation. The creation and use of feedback is therefore necessary for future innovation and will occur whether formalized or not. Collecting and focussing on feedback enhance trust and ownership of employees, the public, interest groups, the media and politicians. Treating failure as a false step rather than a conclusive catastrophe contributes to this approach. By creating the right signals as the results of an innovation become known, and by clearly recognizing and celebrating both success and failure, future innovation is made possible.

While this process is not a prescription, and innovations will not always follow it, innovation created to solve problems will often contain this pattern. The process is described in Figure 1. Readiness is outlined in more detail than the other stages in this figure. Chapter 3 deals with readiness and negotiating approval, while chapter 4 addresses effective implementation, a focus on results and learning.

Some authors reject the idea of innovation stages (e.g. Osborne and Plastrik, 1997). Still, most innovations will need to contain these five elements and generally in this order. Knowing that these are the stages of innovation does not make it happen, however. To make innovation happen involves people.

Readiness

The Leader's Perspective

The literature is full of information for managers on how to develop capacity to change. Repeating it here would take the rest of this book, so it will not be repeated. Instead, a few indispensable points will be

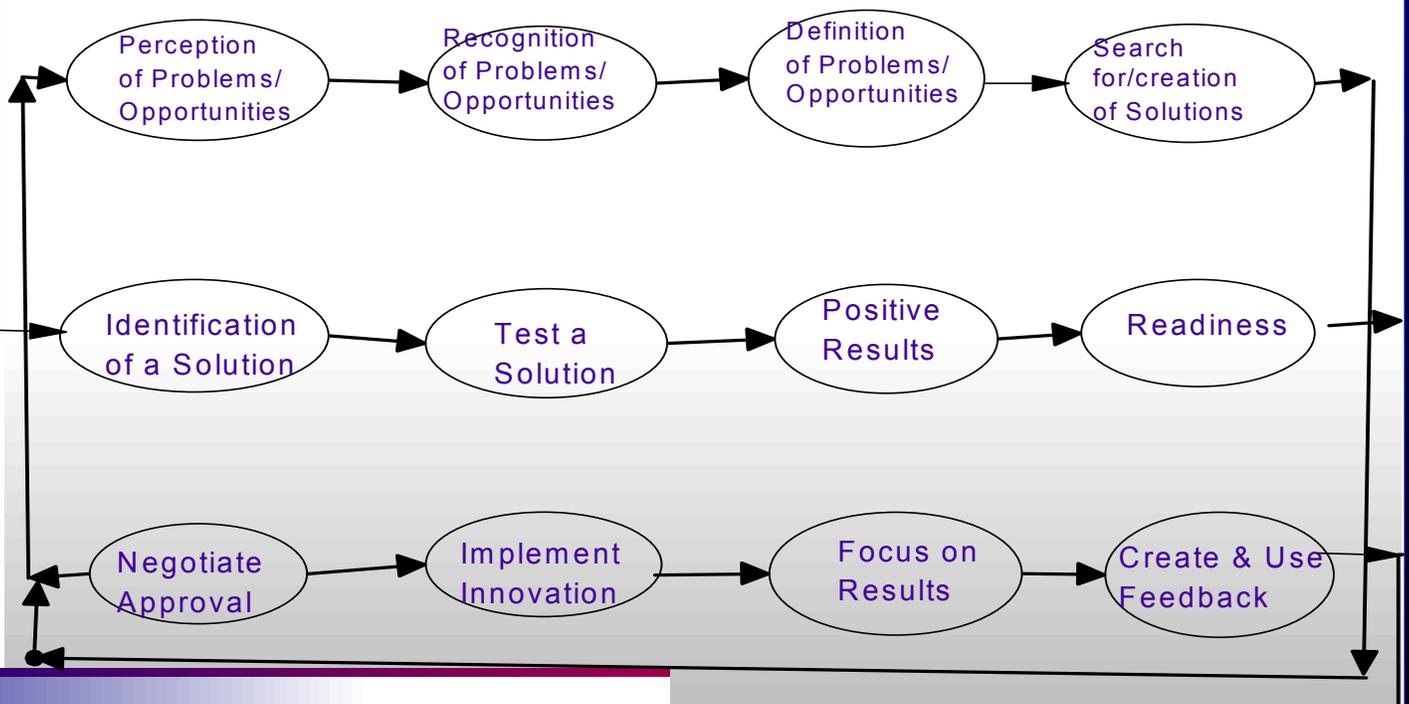
Leadership and the Capacity to Change

- Who needs to change first?
- What do people need in order to be able to change?

emphasized.

First, remember the literature is directed to managers when it consistently assumes that it is the employees who must change. Likewise, advice to CEOs suggests that changing top management and structures is the route to change. This is not necessarily the most valuable way to approach innovation. Consider the possibility that leaders and managers should be the first to change (note the active verb tense here: this does not say *to be changed*).

Figure 1: The Innovation Process



If change is needed, a focus on the kind of organization yours needs to be in order to be innovative is more relevant. Innovation is one among several tools an organization can use to help it adapt to new realities, and especially, to create the new realities. Innovation allows choice. Leadership that decides that choice is better than response will be faced with the reality that some people will not make the same choice at the same time. A leader is a person who makes that choice earlier than others, and is willing to take on the role of helping others to see

the benefits of doing so. These are Kirton (1984)'s innovators. Managers and Kirton's adapters might be the ones who stick-handle it through the necessary processes.

A leader is not necessarily a manager. A leader's job is not only to get a particular innovation on its way, but also to help to create an environment that makes innovation possible. So it is important to realize that people and organizations find it hard to change. Which is not the same as saying they do not want to do so. For the individual, the unconscious directs a good deal of activity without revealing why. Likewise for the organization, the organizational culture or the current equilibrium, depending on how you wish to think about it, exerts an unconscious influence to keep things as they are.

The process of preparing for change—in a population, an individual or an organization—involves first becoming more conscious of what the current situation is like, who it benefits, and who it disadvantages. Those who benefit from the status quo find it hardest to see this, and will not necessarily want to change it. Consider who benefits as you review the tools for innovators this book.

A manager can best consider her/his organization's readiness to change by asking herself the questions under Tool #1 (see box) about her organization. Tool #1 suggests some questions about where you are and how you are doing. Be careful of elitist notions of innovation. The whole world does not rest on the shoulders of managers, leaders, and innovation champions. Willingness to change induced in an elitist manner will be extrinsically motivated and solutions will be less creative than they could be (Amabile, 1983). This issue is discussed in more detail in Section III.

The Individual Employee's Perspective

Innovations are not supported if employees do not support them. What are the circumstances under which employees do and do not support innovation? Put differently, what motivates employees to innovate? According to some of the management literature, it is rewards and delegation of responsibility. According to other parts of the literature, it is empowerment as motivational enablement and participation (e.g. through teams). In chapter 3 we examine empowerment as delegation. In chapter 11 and chapter 12 we consider empowerment as employee self-actualization and participation, and in chapter 13 broaden our scope to include empowerment of clients and citizens. Ways to evaluate—along with the results of evaluations of employee empowerment—are discussed there as well. The effect of empowerment—as a motivator—will be also be discussed in section III, in terms of its impact in producing intrinsic and extrinsic motivation, as we attempt to build a framework for understanding innovation patterns.

While it is true that at least some employees can come to support change because they believe they have no choice—the company is going under, the government is running large deficits, direction has been received to do so, another important way that employees come to support change and innovation is through empowerment. Employee support and choice can be developed through employee empowerment, by empowering employees in relation to problems and through revamping power relationships in the workplace. Like the term innovation, the term empowerment is used by different people in different ways.

A Gardener Innovators Toolbox

Tool #1: Find Out Where You Are and How You Are Doing

1. Have the people in your organization decided that change is needed?
Yes " No " Why?
-
-

2. Are the employees of your organization empowered? Yes " No "
In what way? Delegation? Yes " No "
Enablement of self-actualization? Yes " No "
Participation? Yes " No "
Empowering participation? Yes " No "

3. Does your organization have sufficient skill and capacity to:

Recognize problems? Yes " No "
Define problems? Yes " No "
Identify solutions? Yes " No "
Develop effective strategic plans? Yes " No "
Recruit competent staff Yes " No "
Change Yes " No "

4. How important is this change to your work unit? (Circle your estimate.)

Not Very Important 1 2 3 4 5 6 Very Important

5. To your organization? (Circle your estimate.)

Not Very Important 1 2 3 4 5 6 Very Important

6. Type of organization: Public sector " Private sector " Non-profit sector "

Understanding the Concept of Employee Empowerment¹⁵

The Term *Empowerment*

The term empower has been part of the English language for 250 years. Ken Kernaghan (1992) suggested that empowerment in the public service is about fostering individual and collective action by employees to the benefit of the government, its managers and its employees (enabling). He held it is not about managers getting employees to act as managers would like them to act (as is often the case with

delegation). Empowerment is also about making the best possible use of employees' knowledge and skills (self-actualization). According to Conger and Kanungo (1988) empowerment is about power and control. As demonstrated in the Whitehall studies of the entire British civil service (Marmot, 1991; Bosma H, et. al., 1997; Smith, Shipley, Rose, 1990) and an APEX study (1998) of Canadian federal government executives, power and control in turn affect individual health very substantially. Empowerment can thus be seen in at least three ways—as relational, motivational, and democratic.

Empowerment is used three ways:

- conferring official authority or legal power,
- promoting self-actualization,
- enabling by providing means and opportunity

Merriam-Webster's Collegiate Dictionary

Empowerment as Relational–To Delegate.

During the 1980s and 1990s the term empowerment in some management circles became synonymous with delegation. Empowerment in this interpretation became part of a package of changes to government that reduced the scope, funding and staffing of public sector programs. It empowered front-line managers to deal with the consequences and to find more efficient, and if possible more effective ways, to deliver services to clients.

As a matter of relations, power was seen as “the perceived power or control that an individual actor or organizational subunit has over others.” In terms of social exchange theory, power is a function of the dependence or interdependence of people. “Power arises when an individual's or a subunit's performance outcomes are contingent not simply on their own behavior but on what others do and/or on how others respond.” “The relative power of one actor over another is a product of the net dependence of the one on the other.” (Conger and Kanungo, 1988: 472)

At the organizational level, a person's power over an organization is based on “the actor's ability to provide some performance

Interpersonal sources of power:

- office or structural position,
- personal characteristics,
- expertise,
- opportunity to access specialized knowledge/information.

¹⁵ I first published these ideas on employee empowerment in Eleanor D. Glor. 2001. “Ideas for enhancing employee empowerment in the government of Canada.” *Optimum, The Journal of Public Sector Management*. Vol. 30(3-4):14-26.

or resource that is valued by the organization or the actor's ability to cope with important organizational contingencies or problems." (Conger and Kanungo, 1988: 472) Power can be both interpersonal or relationship-based and resource-based.

"Implied in these theories are the assumptions that organizational actors who have power are more likely to achieve their desired outcomes and actors who lack power are more likely to have their desired outcomes thwarted or redirected by those with power" (Conger and Kanungo, 1988, p. 472). This orientation focusses on the source or bases of power and on the conditions that promote dependence. Resource allocation is treated in these terms as a method for increasing and reducing power.

Resource-based sources of power:

- legal (control of office),
- coercive (control of punishment),
- remunerative (control of material rewards),
- normative (control of symbolic rewards),
- knowledge/expertise-based (control of information).

Empowerment then becomes "the process by which a leader or manager shares his or her power with subordinates. Power is interpreted as "the possession of formal authority or control over organizational resources" and the emphasis is on the notion of sharing authority and granting power—*authorizing, delegating and decentralizing decision-making power*. Empowerment is often used in this way in the management literature (Conger and Kanungo, 1988, p. 473).

The **government of Canada** has primarily used delegation and structural approaches to innovation.

According to the delegation, or structural (Tyman, 1988) version of empowerment, employees should be empowered by the granting of power and decision-making authority, stemming from hierarchical authority, control of resources, and centrality in important networks (Astley and Sachdeva, 1984). An emphasis on delegation, therefore, addresses empowerment as seen by managers, not empowerment as experienced by subordinates. Employees are the objects of the delegation and power sharing, who are receiving power; they are not subjects in assuming power. Nor does this approach to empowerment address key questions such as: Does the sharing of authority and resources with subordinates automatically empower them? Through what psychological mechanisms does this occur? Are the effects of delegation the same as the effects of an empowering experience?

The Search for Options: Individual Creativity¹⁶

The best way to develop options is to think through the possibilities ahead of time, as opposed to grabbing at whatever option presents itself in the urgency of the moment when a problem must be solved. This requires planning and creativity. The capacity of individuals and organizations to create new visions and options is a crucial element of public sector innovation.

¹⁶ Some of this material has been previously published in Glor, 1998b.

Do we know how to enhance creativity?

A new profession has developed, helping organizations enhance the creativity of their ideas. These practitioners certainly believe that creativity can be enhanced. This is usually accomplished in a quantitative manner, by encouraging development and consideration of more ideas. The processes sum the individual ideas, integrate them and choose the best or most supportable options. There is some research evidence to support the assertion creativity can be enhanced through these techniques, but it is limited (Glor, 1998b). There are those who claim, in contradiction, that everybody has a tendency to agree with everybody else in groups, and individual creativity is reduced. Chapter 3 examines individual creativity, and chapter 11, and to some extent chapter 12 and chapter 13, group creativity.

Here we look at two individual techniques for developing and retaining new ideas (see box).

Individual Techniques for Developing and Retaining New Ideas

- (1) Changing individual characteristics, esp. personal motivation
- (2) Individual creativity enhancement.

Creativity is related to personal characteristics:

- specific personality traits,
- self motivation,
- special cognitive abilities,
- a risk orientation,
- diverse experience,
- expertise in the area,
- social skill,
- brilliance,
- naiveté

Amabile, 1998: 128-129.

Individual Characteristics

Theresa Amabile has done the most empirical work on creativity. She investigated creativity by studying a group of 120 innovators working in research and development. She found creativity was positively related to personal characteristics (see box). The qualities of problem solvers that inhibited creativity, on the other hand, were lack of motivation (30%), unskilled (24%), inflexible (22%), externally motivated (14%), and socially unskilled (7%) (Amabile, 1998: 129). Individual creativity was enhanced, in other words, by domain relevant skills, creativity-relevant skills and intrinsic task motivation.

Enhance creativity through:

- domain relevant skills,
- creativity-relevant skills
- intrinsic task motivation

On the assumption that more creative ideas are at least sometimes better ideas, and more likely to move outside of existing frameworks, how can the creativity of innovations be increased? Amabile (1988:

141) built a model using her three categories

of domain relevant skills, creativity-relevant skills and intrinsic task motivation as the key elements. She suggested that each one of the three components of her creativity model (she calls it a *multiplicative model* that applies to individuals and small groups) is necessary for creativity to occur; the higher the degree of each of the three components (all must be present), the more creativity there should be (Amabile, 1998: 137). Conceptualized as circles, individual creativity

or organizational innovation will be greatest where the circles overlap; hence, the *creativity intersection* (Amabile, 1998: 156). The concept of the creative intersection, applicable to both individual creativity and organizational innovation, suggests that managers and team leaders should look for task skills, creative skills and intrinsic motivation, when recruiting. At the same time, information should be used to remove inhibitors to creativity—that is, obstacles should be removed before putting new things in place, and environmental factors that promote creativity should be bolstered (Amabile, 1998: 163).

Creativity Enhancement. If individual characteristics have an impact on personal creativity, it has also been suggested that creativity can be enhanced through creativity-enhancing group techniques such as brainstorming and mind mapping. Surprisingly, a review of creativity literature by Stein (1974: 303) discovered that individuals actually generate fewer ideas in such groups. Hackman and Morris (1975) proposed that group performance is reduced because of motivational losses, but also, again surprisingly, by processes and co-ordination. Problem-solving groups could improve their effectiveness, on the other hand, by training individuals in problem solving skills (Bottger & Yetton, 1987).

Techniques identified for enhancing organizational creativity included the separation of solution generation and evaluation of solutions (Cummings and O'Connell, 1978; Basadur et al., 1982; Basadur et. al., 1986), risk taking, free exchange of ideas, legitimization of conflict, stimulation of participation, reliance on intrinsic as opposed to extrinsic rewards, and participatory empowerment (Elden, 1986). Woodman, Sawyer and Griffin (1993) inferred, however, that there was little empirical support for these conclusions, except for that provided by Amabile (1983), although "... correlation evidence with ratings of overall innovation has been provided by Paolillo and Brown (1978) and Abbey and Dickson (1983)" (Woodman et al., 1993: 306).

The conclusion that there is a lack of empirical evidence to support the idea that techniques can enhance organizational creativity continues to be challenged by those who seek to teach methods and train groups to be more creative—that is, those concentrating on the process rather than the product. Their approach treats creativity at least in part as a set of thinking skills. To Basadur, Graen and Scandura (1986), creativity is enhanced when more time is spent producing ideas, on the basis that the quality of ideas is the same

Tool #2: Identify the Problem or Opportunity

7. From the employer's perspective:

(a) Is there a problem? Yes " No "
(Do not answer this question quickly - it is probably the most important question in this checklist) _____

(b) What is the objective of your organization in making this change?

(c) Is there an opportunity? Yes " No "
"

(d) What is it? _____

(e) What is the basis of power in this situation? _____

(f) Where is there potential for empowerment? _____

(cont'd)

throughout idea development, and when the group avoids making premature critical evaluations of ideas. These authors found that training focused on developing the thinking skills associated with creativity (active divergence, deferral of judgment, and active convergence) led to tangible outcomes in terms of the quantity and quality of creative output. Trainers at the Manchester Business School Creativity Research Unit, using methods developed by the pioneering programs of the Creative Problem Solving Institute, Buffalo (which was also the basis for Basadur's approach), found that a one-day training program heightened awareness of personal capacity for creative action but did not have any impacts if there were no reinforcing factors in place in the workplace. A three-day program may achieve valuable results if the person develops a critical mass of trained people through formal or informal networking. The outputs of a ten-day program, on the other hand, included both tangible products such as contributions to corporate innovation success and changes in behaviours and problem-solving strategies of participants (Rickards, 1993: 162-5).

Tool #2 outlines some ideas for exploring the nature of the problem and challenge that can lead to an innovation. In keeping with the perspective of this chapter, that of managed innovation, the question is presented from the employer's perspective.

Tool #3: Develop Ideas and Solutions

9. Have you explored broadly for ideas? Yes " No " How?
Library research " Asked other public servants " Talked to my friends and acquaintances "
Searched internationally " Checked Internet " Other:

104. Do you have enough of the right kinds of ideas? Yes " No "

11. (a) Have you encouraged creativity? Yes " No "
(b) Used creativity enhancement techniques? Yes " No " (Please indicate the tool used and how many times used):
(c) Edward de Bono's Thinking Hats Yes " No " Number of times: ____
(d) Mihaly Csikszentmihalyi's Flow Concept Yes " No " Number of times: ____
(e) Min Basadur's Creativity Process Yes " No " Number of times: ____
(f) John Kao's Creativity Audit Yes " No " Number of times: ____

Other: _____

12. (a) Have you made efforts to understand your staff's motivation? Yes " No "
(b) Their roles, by using Michael Kirton's Adaptor-Innovator (KAI) distinction Yes " No "
Number of times: _____

13. Have you benchmarked (compared your ideas with the best known practices world-wide)?
Yes " No " Relevant benchmarks: _____

Tool #3 provides some help in determining whether you are likely to have solicited creative ideas. A creativity enhancement specialty has developed among consultants to support organizations to be more creative, and their assistance is available to managers and organizations.

There are clearly a variety of ways to approach enhancing ideation. While creativity has traditionally been treated as an individual activity, and is likely at least in part a function of individual capacity to imagine, the effectiveness of creativity enhancement techniques is also a group process. The Amabile and Rickards research also pointed to the importance of group and organizational support and interaction. These are examined in chapter 11.

Negotiating Approval: Creating Commitment and Will

While new ideas are clearly an important element of innovation, ideas are not all that is needed. Anyone working in an organization or with others must secure others' agreement.

Creating Political Will

Saskatchewan during the 1970s offers an example of political will, as does Ontario of the late 1990s, and Alberta during all of the 1990s. I know Saskatchewan best, so I will use it as an example.

Saskatchewan politics is polarized. Governments have alternated between left-of-centre CCF/NDP governments and right-of-centre Liberal or Progressive Conservative governments.

The spirit of reform in Saskatchewan had early roots in the farmer, farmer-labor, teacher,¹⁷ cooperative and social gospel movements of the 1910s through the 1940s. In later years, the political representation of this radical approach was the CCF. A reputation for innovative programming started with the CCF government of Tommy Douglas, elected in 1944, which introduced numerous innovations.

Political will was rooted in the strength of its election platform and the determination of the government; successful innovation also required bureaucratic will and adequate resources.

During the Blakeney government, political will was rooted in the strength of its election platform and the determination of the government; the Premier and the Cabinet were strong in their commitment to the New Deal for People. As always, differences of opinion existed within the Cabinet, but it remained publicly united. The Harris government of Ontario, likewise, was prepared to take on what it considered to be special interests, like the poor, their proponents, and teachers' unions. The government reduced welfare payments, changed the curriculum to emphasize math and science, and increased accountability systems for schools and teachers, including comprehensive exams and teacher assessments.

Successful innovation also required bureaucratic will. In Saskatchewan, messages about policies were carried and monitored within the civil service primarily by the Clerk of the Privy Council and the Budget Bureau, the staff arm to the Treasury Board.¹⁸ The Budget Bureau performed both a policy and budget analysis and control function. Line agencies and staff were sometimes dissatisfied with this strong central control, but they had their own opportunity to present their positions directly, at Treasury Board. The processes of government served well the implementation of the government's will. In Ontario, the Cabinet dominated decision-making,

¹⁷ M.J. Coldwell, C.M. Fines and W.S. Lloyd, who helped to build the CCF, were prime movers in organizing teachers. Lloyd was President of the teachers' federation when first elected M.L.A.

¹⁸ A committee of Cabinet members chaired by the Minister of Finance, appointed by the Premier.

which had a strong political character. Rational processes such as policy papers and decision processes through Cabinet committees were set aside in favor of direct decision making by Cabinet and the Premier. While the informal Blakeney coalition of small farmers and urban dwellers held together for three terms, the Harris alliance of business, suburbanites and farmers has held for two.

Creating Adequate Resources

Although the Blakeney government came into power in a recession, within a few years the economy improved, due to increases in oil prices (the price of oil quadrupled in 1973-74), improvements in crops and agricultural prices, and increased demand for potash. Increased economic activity combined with higher taxes meant more jobs, a buoyant economy, and growing government revenues. The GDP, budget and revenues increased fourfold from 1971 to 1982 in current dollars. Saskatchewan had some of the lowest unemployment rates in the country during the Blakeney years. Thus, program expansion, though not all of the economic development activities, was able to occur within the NDP's conservative fiscal policy. The Canadian economy, by comparison, was also booming during these years, but the federal government was running yearly, growing deficits (Statistics Canada, 1993, p. 182.).

The government attempted to control expectations for program expansion within the civil service, since it had a specific agenda it wished to accomplish, but this was of course unsuccessful: when growth is occurring around you, you expect to participate in it too. New programs began to mature; for example, the school-based dental program enrolled more students, the Hearing Aid Plan opened additional clinics as qualified staff was recruited and/or trained, and community college programs expanded. All this meant added costs. As a result, the Saskatchewan government experienced a painful turn-around in expectations after 1975, when the revenue growth rate began to decline. Nonetheless, revenues and expenditures continued to grow throughout the 1970s.

Although programs grew, all revenues were not dedicated to ongoing government operations. The Heritage Fund was created to receive about half of non-renewable resource revenues, and was used to support the economic development of the province through investment in crown corporations (government-owned corporations).

With such an increase in revenues and expenditures, it is possible to argue that the government was innovative because it had plenty of resources. The government's expenditures increased in current dollars from 1971-72 to 1981-82 from \$.582 billion to \$2.524 billion, including Heritage Fund expenditures. Revenue increased from \$.592 to \$2.664 billion.¹⁹ (Province of Saskatchewan, Public Accounts and Annual Report, Saskatchewan Health Services Plans, 1972 and 1983).²⁰ The gross debt increased from \$.709 to \$3.316 billion, all of which was self-liquidating debt, largely due to crown Corporation borrowing, which would be repaid

¹⁹ These expenditure and revenue figures sum both Consolidated Fund and Heritage Fund amounts, and are adjusted for overlaps.

²⁰ These figures have been adjusted to use gross budgeting in both cases.

by the agencies involved (none of it was for government operations) (Province of Saskatchewan, 1982). In constant dollars (real dollars) the value of Saskatchewan government expenditures increased 85% from 1972-81, when both Consolidated Fund and Heritage Fund expenditures are taken into account. This made available substantially more expenditure resources than the government had started out with, in a recession bound 1971-72.

Tool #4: Create Management Commitment

14. Do elected (politicians, organizational board) and/or appointed officials have the will to implement the innovation/idea? Yes " No "
15. Has adequate time been allocated for planning, piloting, implementation and evaluation? Yes " No "
16. Can it be implemented in a timely manner? Yes " No "
17. Does it require a change in legislation? Yes " No "
18. Do you have a strategic plan? Yes " No "
19. Do you have a project implementation plan? Yes " No "
20. Do you have a comprehensive communication plan and human resource plan? Yes " No "
21. Have adequate resources been assigned to the innovation:

The right people Yes " No "
Sufficient budget Yes " No "
Appropriate techniques Yes " No "
Necessary technology Yes " No "

According to Statistics Canada's equalized basis for analyzing provincial expenditures Saskatchewan moved from having the lowest per capita expenditures in the country to having the sixth highest, among 13 provinces and territories. Revenues moved from the lowest per capita to fourth highest (Glor, 2000a, Chapter 2, Table 2). Saskatchewan was fortunate during the mid 1970s in having a growing economy and good prospects, as did many Canadian provinces at that time. None had anything like the boom that occurred in Alberta. Although Saskatchewan expenditures grew more than most, all provinces experienced substantial growth in expenditures during this period. Among them, the Saskatchewan government stands out for its innovative policies.

Creating Management Commitment

Managers are busy people. It is hard to get and keep their attention, but it is usually essential to have their support to create innovation. You can tell if you have management commitment by answering the questions for Tool #4.

The Role of Networks

Relying on management to create change works well if management wants to change. At the same time, it also fits well with clientelist, hierarchical systems. The problem is, managers are part of, successful in, and therefore have an interest in maintaining the present system. Change managed with their leadership will likely only be incremental and extremely limited. Few have an interest in changing: they have enough problems to fill their attention managing the existing system.

Although public servants are not forbidden to be active in political parties, it is not a good idea in the Canadian context. In the USA the top four levels of management are replaced with each new president, so management is always politically appointed. In Europe, public servants can be and are explicitly political, although their advice is more valued when their views are shared by the politicians in power. In the Westminster system of Great Britain, Canada and Australia, a permanent civil servant is a neutral civil servant, to the extent that is possible.

Public servants do have means to build support, however, and in fact they must in an environment of competing interests. There are two ways to do this—either by building and in many cases funding interest groups and networks outside the organization to work with on issues or by adopting or becoming involved with existing interest groups and networks. The benefit of building a network is that the public service can have some influence over the public profile it takes.

This should be non-political and issue-oriented. Then the challenge is to get the issue onto the public agenda.

Often the networks are built after the issue is already on the political agenda, and the groups involved risk entering into a coopted relationship with the public servants. Their funding and the existence of the network are dependent on government funding and in some cases the specific public servant involved. This approach thus slides back into patron-client relationships, only this time with public servants instead of politicians.

Yet there is a sense in which it is part of a public servant's role to monitor the networks and issues being actively worked on in civic society. Once a government has been in power two or three terms, it relies more on the public service for ideas, and less on the political party. Most political parties play a role in idea generation and platform development when a party is out of power, but this function tends to decline when the party is in power, and policy development is taken over by the executive, of which the public service is a part. This presents an opportunity to a public servant, although one it cannot often meet. Only if the public service has been forward-looking, actively involved in networks and demonstration projects, and has been independent-thinking will serve this function well.

The Value of Demonstration Projects

Demonstration and pilot projects have the potential to remove innovations from the political sphere and management power battles, at least to some extent. To me, the definitions of demonstration projects and pilot projects are much the same: the focus in demonstration projects is showing something can be done in a certain situation, that of a pilot project is showing it can be done at all. They assure ideas have been tested when opportunity arises, and they allow new ideas to be tested before a large amount of money has been expended and (hopefully) before public and media attention zooms in upon the idea. They thus help to reduce conflict and contentiousness by showing concrete thinkers what the idea looks like, and satisfying the desire of adaptors to know that they will work. Tool #5 addresses pilot testing.

Tool #5: Pilot Test	
22.	Have you decided to pilot the innovation? Yes " No " If no, proceed to <i>Implementation Stage</i>
26.	Do you have what you need to pilot it appropriately? Ideas Yes " No " The right people Yes " No " Support Yes " No " Resources Yes " No " Other: _____ _____
27.	How and through whom will you pilot it? _____
28.	Do you have a plan for learning from and building upon an unsuccessful/ successful pilot? Yes " No " How? _____
29.	Do you have monitoring and evaluation systems? Yes " No "
29.	(a) Do you have a communication plan for an (un) successful pilot? Yes " No " (b) Are you going to publish the results? Yes " No "

Major program changes, in particular, should be pilot tested, evolve and grow conceptually, achieve administrative sophistication, and develop widespread public and political support, before being introduced as government programs. Remember, political parties and

elections are the most important mechanism for introducing policy and program changes in democratic countries. Political parties often take a scavenging approach to identifying new policies, rather than a systematic development approach. In environments with too short-term a perspective, and political interaction that is too contentious, new ideas are often not sufficiently tested. Untested ideas are often brought forward in two ways—they are included in political platforms prematurely and they are brought forward by pressure groups, company employees or public servants before they have matured, but a window of opportunity has opened.

When I worked for the Saskatchewan government, I noticed a different pattern. Pilot projects were being run all the time. I set four of them up myself. Some successful ones became government programs, some did not, some were adopted by other governments, some failed (Glor, 1997a, Conclusion). This Saskatchewan innovation development process produced a bank of tested innovations, available for implementation in the future.

Saskatchewan Health Pilot Projects

- Comprehensive school health program
- Prenatal nutrition project
- Pre- and post-natal counselling program for Native women
- Provincial child and youth safety committee
- Seniors community health centre
- Worker participation on crown corporation boards

Demonstration projects were established, for example, addressing a cross-section of risks faced by *children*, including a comprehensive school health program, a child and youth safety program (Glor, 1989), a pre-natal nutrition program, and a pre- and post-natal counselling program for urban First Nations women (Glor, 1987). The latter program was run by a native women's community-based association. The Saskatchewan prenatal nutrition pilot, for example, failed in its grand objective to increase mean birth weight significantly in a region of the province. The First Nations pre- and post-natal pilot, on the other hand, was remarkably successful, influencing smoking, birth weight and contact with the medical system during pregnancy (Glor, 1987). With a change in government, all of these projects eventually disappeared in Saskatchewan, but with a new Saskatchewan NDP government leading the charge, the federal government introduced a series of national programs for children after 1993. These included a national income program for poor children through the tax system, and Health Canada's adoption of comprehensive strategies through its population health approach. Health Canada introduced a prenatal nutrition program (established 1994) and a children's health program, Brighter Futures (1992) for the population-at-large, and ones for urban and reserve aboriginal children (Aboriginal Head Start) in 1994. It broadened the interventions, in the belief that spotlighting the one area of nutrition might not work. In total, the Saskatchewan idea-testing and development process was responsive, inexpensive, tested the waters, developed ideas that worked, and had influence. How effectively the knowledge developed in Saskatchewan was passed on to the federal government was not clear, but the information was available (Glor, 1986, 1987, 1989). More information on these pilot projects is detailed in chapter 3.

Another example was in the area of *worker participation*. The requirement in the Saskatchewan *Occupational Health and Safety Act* to provide for equal worker participation in

occupational health and safety committees in workplaces with 10 or more employees was a first step in the direction of industrial democracy as it is widely known in the Scandinavian countries, in what was formerly West Germany and in other European countries. Worker participation was a concept endorsed by the International Labor Organization and was given credit for cooperative arrangements between labor and management that reduced conflict in labor-management relations to an impressive degree. The Saskatchewan Department of Labour explored the policy further with a view to a modified form of worker participation on management boards. It was greeted with scepticism by organized labor. In some quarters, labor feared that in sharing management responsibilities workers might be coopted and begin to see management's point of view with greater clarity than the unions'. An effort was made to interest the Energy and Chemical Workers at the government-owned Sodium Sulphate Plant at Chaplin in a pilot project. Workers were ambivalent and the union unenthusiastic. The program did not get off the ground. (Snyder, 1997)

Another attempt at worker participation was somewhat more successful. On the invitation of the provincial government, the Saskatchewan Federation of Labor, the umbrella labor body in the province, nominated a trade unionist to serve on the board of a number of crown corporations (e.g. a member of the Communication Workers would serve on the Board of the Saskatchewan Power Corporation).

It was felt that the worker should not be from the union that bargained for that particular crown corporation, because a conflict of interest was seen with a union member on the board which was negotiating a contract with his or her union. The concept of worker participation or industrial democracy had not advanced beyond that stage when the NDP was defeated in 1982, and was not revitalized when the NDP came to power again in 1991. (Snyder, 1997)

Other Saskatchewan demonstration projects were notable *failures*. As part of the effort to promote community activism, staff of the government were initially permitted to criticize the government. The government found it could not tolerate *fire in its own belly*, as the former Premier put it. It sought the resignations of staff of the Human Resources Development Agency and the policy development group of the Department of Northern Saskatchewan, and shifted funding of critical activities to groups outside the government. In another domain, the effort to support a system for transferring land between generations saw farmers selling land to the government at market prices, then new/young farmers being permitted to buy it, again at market prices. In an environment where land prices were increasing, this system created few winners—those who won the right to buy the land and could afford to do so—and many losers—those who were not eligible or could not afford to buy the land when eligible. The Opposition made a big issue of it, and the program was allowed to languish.

The Saskatchewan Science Council, the second science council created in Canada, was

Saskatchewan Innovation Failures

- Native employment agency within government
- Policy development in the Department of Northern Saskatchewan
- Program to transfer land between generations
- Science Council

also a failure. It was neither as productive nor as relevant as expected, and was abolished after five or six years of existence. The federal government allowed its Science Council, the first created in Canada, to exist for about twenty-five years, then abolished it as well.

An attitude that both permitted many trials and got rid of failures quickly served the Saskatchewan government well as a government but turned off some of its own supporters. During the government of 1971-82, 160 policy and administrative innovations were introduced (Glor, 1997a, 2000a). No other government has ever been identified as introducing so many innovations. Yet the province of Saskatchewan only has a million people and is poor.

Conclusion

Creating readiness to innovate is complex, as argued at the beginning of this chapter. It is supported by understanding the innovation process and the role of populations, leaders and employees. Preparedness to change is enhanced by public, leader and employee empowerment. Creativity and intrinsic motivation are both magnified by empowerment. Continuous innovation is supported by organizational knowledge creation, the learning organization, and a commitment to a better future, which is the end product of the innovation process if it is allowed to feed back (Figure 1). At the same time, an innovation champion—and maybe you are one—can help to create political and management will and commitment through demonstration programs.

A Gardener Innovator's Guide to Innovating in Organizations

Chapter 4: Implement Effectively, Focus on Results, Seek and Learn

Introduction

Innovations are usually purpose-driven: They are not typically introduced because governments recognize the need to be innovative, but rather as solutions to specific problems, such as disadvantaged persons, high debts and deficits. Processes such as those outlined in the previous chapter to enhance and support innovation and creativity are rationalist approaches. They define problems and develop solutions to the problems as defined, following a linear process and creating an effective solution to the specific problem. There are, however, other ways to approach innovation.

One alternative is the redundant approach mentioned in chapter 3. Rather than following a straight line to a solution, it examines more and broader options by seeking detailed input from several staff groups. More than one group is made responsible for developing the innovation, producing competition among them. This model was followed in many Japanese companies (Nonaka, 1990), at least until rationalization struck them, as well, starting

in about 1990. The redundant approach may be difficult to adopt in western governments, because of the focus during the 1990s on reengineering and business process streamlining. A principal objective of these cost-reduction strategies was the elimination of slack, but slack is essential to a redundant approach. By definition more resources are assigned to the task with a redundant approach than is absolutely necessary to solve the problem, in order to come up not with *a* solution, but with the best solution possible.

Until the 1990s, the Japanese suffered neither government deficits nor intensive competitive pressure on their companies. As a consequence, when western governments were cutting back, they did not face the same kinds of budget reductions. Moreover, the Japanese have focussed far more on quality approaches than reengineering, the favored adjustment strategy in the west. Thus stakeholders' interests have been constantly considered and made part of the development process, producing innovations and quality improvements which pleased customers and expanded markets. These were the methods that led Japanese car manufacturers to secure half the North American market for cars and trucks, despite having a more expensive product. Although it adds steps, compared to the western development process, the Japanese development process actually takes less time than the western (Glor, 1998b, unnumbered table).

The Redundant Approach

- Does not follow a straight line to a solution
- Examines more and broader options
- Seeks detailed input from several staff groups
- More than one group is made responsible for developing the innovation
- Produces competition

Partners for Innovation

While an understanding of the innovation process is important, people make this process possible. Innovation is a partnership among the public, elected governments and public servants, with each playing separate and overlapping roles. As with any other endeavour, the key to

success is collaboration of those who want to innovate. Stress and economic scarcity, as discussed earlier, have often prompted the public's openness to innovation and some political parties have been more interested in innovation than others. But who are the public servants most interested in innovation?

They can be the newly recruited, newly assigned, young or alternately, the greatly challenged public servants (including those standing on a *burning platform*), resulting in a willingness to change and to try new approaches. These same people, once they have a stake in the current situation, can also become resistant to change. Typically those who achieve senior positions in a bureaucracy are part of the existing culture and function effectively within it. Their

willingness to take risks or let go of power is very limited. When the desire to create fundamental change is combined with status, power and political support in one person, however, it increases the likelihood of success. On the other hand, often innovation in government is driven from the top, by new political and public service leaders and consequently has minimal support in the organization. The best of ideas then suffer from limited and unenthusiastic application. An innovative public service requires horizontal processes that will involve, glean ideas from, and develop the support of all levels and departments. The skills required for this approach are increasing in government today.

The elements of creativity and will; the processes of readiness and pilot testing, were discussed in the previous chapter. The need for excellent implementation, an emphasis on results and learning; and personal, political, problem-solving, technical and professional skills are discussed in this chapter (See also Glor, 2000a). They are not always present in the public service to any great degree, but are created periodically when the need and urgency of dealing with an issue overcomes the focus on other issues and the desire for constancy. Budget cuts, like surpluses, create the opportunity for innovation, but only a government and a public service organized to deal with the issues and wanting to innovate will respond in a positive manner. Governments and the public service must create the infrastructure, support and skill sets to sustain ongoing innovation.

Elements of Innovation

- creativity
- will
- processes of readiness, pilot testing, excellent implementation
- emphasis on results
- learning
- personal, political, problem-solving, technical and professional skills

Create an Encouraging Organizational Culture: Good Leadership, Good People and a Supportive Working Environment

Let us consider two examples, the Province of Saskatchewan experiment of the 70s and the City of Phoenix government of the 1990s.

An Example: The Saskatchewan Experiment of the 1970s

In Saskatchewan, the Tommy Douglas government from the 1940s to the early 1960s created one of the first modern civil services in Canada, one in which people were recruited on

the basis of the merit principle, not political connections (McLeod and McLeod, 1987, pp. 121, 129-30). The government was able to attract people of high calibre (many of them quite young), because it made recruiting a priority and because the civil servants it hired believed in what they were doing: they wanted to participate in the creation of the first social democratic government in North America. The Blakeney government inherited this reputation for excellent public administration when it won the provincial election in 1971 (Blakeney and Borins, 1992, chapter 12).

Like the Douglas government, the Blakeney government also had good administrative leadership, especially in the Premier himself. He had been a senior bureaucrat in the government for eight years, prior to entering the private sector and then politics, so he understood the government and how it worked. His approach to government was non-partisan, he had a good mind (he had

been a Rhodes Scholar) and a desire to innovate. The senior bureaucrats he chose were young, competent, enthusiastic administrators who encouraged and rewarded innovation. Especially in the early years, rewards were available in the form of senior positions for young bureaucrats.

Strong leadership was observable throughout the public service. Policy and program planning was initially centralized in the Planning and Research Office and special secretariats of the Executive Council; later it was devolved to line departments. The staff of central agencies were key players. They and especially the Budget Bureau, did active national recruiting and were able, like the Douglas government before them, to attract bright, innovative bureaucrats and students from Saskatchewan, the rest of Canada, the U.S.A. and U.K., who were willing to move to Saskatchewan, brought with them their desire to try new things, and used their knowledge of innovation elsewhere.²¹ Especially during the early years, people recruited into the central agencies moved on within a few years to senior positions throughout the bureaucracy, so the Budget Bureau in particular was used as a feeder and training agency for the entire government. This recruiting outside the province did not seem to generate much resentment within the established bureaucracy, although some might have been expected. This was probably due to the

Elements of Innovation in Saskatchewan

- detailed platform
- frugality
- ethical and dedicated to principles
- professionalism and dedication to excellence produced excellent public administration, supported by merit principle and ability to attract people of high caliber
- leadership
- non-partisan
- enthusiastic
- rewards
- appropriate use of centralization and decentralization
- desire to be at the forefront of issues
- employee dedication to the government
- valued employees
- supportive organizational culture
- freedom to act
- few self-imposed constraints

²¹ The priority given to recruiting and the field from which they had to choose is demonstrated by the 1976 recruiting campaign, where the Budget Bureau received 1,200 applications, and interviewed over 800 people for eight jobs.

tradition of using the Budget Bureau this way, in place since the Douglas government, and the fact that the number of government positions was growing.

Supported by all of this, but independent of it as well, employees of the government thought of themselves as being in the forefront of issues. There was a real sense of being heirs to the legacy of the superior civil servants recruited by the Douglas government, a number of whom went on to become senior bureaucrats in the Government of Canada. Indeed, many of the senior Blakeney bureaucrats also eventually assumed senior positions in the federal government. This attitude was sometimes overplayed: on occasion civil servants assumed they were still leaders in fields, where they had been at one time, but no longer were. Still, this attitude only served to demonstrate further the culture of leadership that had grown up in the Saskatchewan government.

A factor that contributed to the successful implementation of the innovations of the government, was the sympathy many employees felt for the government. This was incorrectly interpreted by the incoming Devine government as meaning that these civil servants were partisan NDP supporters and therefore disloyal to the new government. The civil service was sympathetic to the government in a sense that was not political: this government provided its civil service with an opportunity to contribute to society through an activist role. It felt valued and needed. The civil service in turn felt loyal to the government which provided it with this opportunity.

Having worked for three levels of government and four different governments, to me what seemed different about working for the Saskatchewan government was the sense of support - it was a sense that the government felt we were doing good work, that our suggestions were worth considering and were considered, that our advice was valued and valuable, that our opinions mattered. This government supported its civil servants. We had to take care what advice we offered in this environment, but it encouraged us to think freely and creatively.

A supportive environment for people, or supportive organizational culture, means above all giving people the freedom to be creative, to allow them to make the contribution they can make. Although in Saskatchewan, as in other governments, people sometimes chafed at the constraints of working in government, there was tremendous commitment, among both the line

agency and central agency staff, to meeting the government's objectives creatively. Especially in the central agencies, there was also a conscious desire to do it professionally and with excellence. Creativity also grew from the fact that so much was being done for the first time - nobody knew how to do it, so there were few self-imposed constraints. The leadership provided, the will to succeed with excellence, and the desire to create new, more effective programs, combined to fashion a formidable organizational culture.

Elements of Innovation in the government of Canada

- detailed platform
- commitment to principles
- frugality
- ethics program
- focus on service and management

An Example: The Phoenix City Government during the 1990s.

The City of Phoenix during the 1990s was a very different place from Saskatchewan during the 1970s and 1980s. Nevertheless, its employees, its managers and observers of the government speak about it in much the same way (Denhardt and Denhardt, 2002). From the ongoing, everyday, excited conversations in the cafeterias to the managers who credit staff and acknowledge unsolved problems, Phoenix has created *an innovative culture*. According to the Government Performance Project, Phoenix handles its challenges better than other cities. The Project evaluated the city's financial management, human resources, information management, capital management, and management for results with an "A" rating. One of the visible ways in which Phoenix is different is that it places citizens at the top, then the mayor and city council, then the city manager, followed by the assistant city managers. The assistant managers each manage five or six departments, and every few years these departments are moved around. The *stovepipe* effect is thus reduced in Phoenix. Change has not come suddenly or quickly to Phoenix; rather, it has embraced change by evolution.

The ten lessons learned described by the Denhardts reflect the encouraging organizational culture that has developed:

- Taking pride
- Looking ahead and creating new challenges
- Building relationships and fostering participation
- Serving citizens
- Trusting and empowering people
- Enacting core values
- Respecting employees and treating them well
- Taking risks and learning from experience
- Recognizing and rewarding people's efforts
- Building a stable foundation and staying the course.

Good leadership, good people and valuing people were important in both the Saskatchewan and Phoenix innovative cultures. Some ideas for assessing the capacity of leadership to support innovation are outlined in Tool #6.

Implement Effectively

Effective implementation is essential to successful innovation. Consider the history of an effective innovator.

Saskatchewan CCF and NDP governments had a tradition of developing innovative planning and financial structures to support the implementation of innovations. The Blakeney government created new structures where these had been abolished and ran effective planning, financial, general management and coordination functions. It was somewhat less effective in its consultative mechanisms (Glor, 2000a).

Tool #6: Build Leadership

31. Do you have the leadership required to see the innovation through to the point where it can be appropriately assessed? Yes " No "

32. Is management generally: Unwilling " Uninterested " Narrow " Rigid " Positive "
Describe: _____

33 (a) It is easier to have faith in a person than a plan or idea. Who is your leader/ champion?

34 Do you have:
A change agent? Yes " No "
A promoter? Yes " No "
A champion? Yes ' No '

35. (a) Is staff generally: Unwilling Uninterested " Narrow " Rigid " Positive "
Describe: _____

(b) How can you give them control? _____

36. Do you:
(a) Facilitate staff attending courses of their choice? Yes ' No '

Tool #7: Implement Effectively

37. Is the required (infra)structure in place? Yes " No "
What is it? _____
38. Is there a process to encourage cross-fertilization among disciplines, professions, functions, topic areas, departments, ways of thinking, motivation, with outside organizations and groups? Yes " No " What is it?

39. Have you created an accountability system which encourages innovation?
Yes " No "
40. How is it different from your operational accountability system?

41. Have you a project culture that facilitates creativity and innovation?
Yes " No "
42. Does your organization suffer from any of the following syndromes?
a. "If not invented in my branch, I'm not interested" Yes " No "
b. Blinkers about what you can/should do, how it should/can be done
Yes " No Define: _____
c. Ideologically driven Yes " No "
d. Financentric (culture of scarcity) Yes " No "
e. Implementing(ed) reforms that discourage innovation, e.g., re-engineering
(eliminating slack) Yes " No " Other: _____
43. How will you deal with these anti-innovation characteristics?

44. Do you have a plan to publicize your innovation? Yes " No "
45. Do you take every opportunity to communicate it? Yes " No "

Saskatchewan was able to develop and implement its innovations within modest budgets. When the CCF took over in 1944, the Government of Saskatchewan was essentially bankrupt (McLeod and McLeod, 1987: 117), yet by 1946 it was able to introduce and pay for universal hospital insurance, supported by a modest administrative system. From 1946 to 1978 Saskatchewan less than doubled its civil service, while Nova Scotia and Ontario increased theirs by six times (Chandler and Chandler, 1979, p. 16, quoting Hodgetts and Dwivedi, 1974, p. 186). The Blakeney government, too, beginning in 1971, maintained a balanced budget while it introduced many new innovations. It is helpful in understanding how the government implemented

innovation to identify the structures developed.

It is also indispensable to understand that this issue was given a great deal of attention. The Premier was both interested in and astute about problems that could arise, and his senior staff were effective, experienced, thoughtful, progressive, well informed public servants. Unlike some NDP governments (Tennant, 1977; McAllister, 1984), the Blakeney government was able to organize itself effectively to accomplish its objectives. Despite the uniqueness of every situation, innovation and creativity can and must be supported by effective management and administrative structures. Some questions worth asking about implementing innovation are identified as Tool #7.

Focus on Results

We are all admonished to emphasize results and learn from feedback. It is not so easy to do. Formalized processes lose the personal touch. Often the results of an evaluation only capture what everybody knew anyway, but weren't prepared to believe from the mouths of the implementers. A request for evaluation and feedback can even kill an innovation.

My Stories:

- Seniors Health Centre
- Native Pre- and Post-Natal Counseling Program
- Provincial Child and Youth Safety Committee
- Pre-natal Nutrition Program

My Stories

In 1980, I was assigned by Saskatchewan Health to set up four demonstration projects, each of which was required by the Saskatchewan Treasury Board which funded them, to do an evaluation.

Beyond the Call of Duty...

The most impressive service I saw was the day an elderly man who was unsteady on his legs (but who occasionally danced anyways) came in to say the heat was off in his apartment, and the owner wasn't doing anything. The day was -40 degrees (that's the same in Centigrade and Fahrenheit). On behalf of the client, the Centre called the owner, the City, the client's city alderman, the gas company, and others. The elder had his heat back by evening.

Seniors Health Centre. The Seniors Health Centre in Regina, Saskatchewan was sponsored by a community group in a poor neighbourhood. It managed to raise the money for the centre from a number of sources, including the provincial government and a service club that provided a van to transport frail elderly to the centre. It even convinced the provincial government to allow it to run the health centre out of a newly refurbished heritage building—the former territorial government building. This it did for several years. The Centre provided a number of preventive services, including exercise, medical check-ups, toenail clipping,

and respite services. The services I liked best were social, where the elderly played music for those even older, who in turn danced to the music; the weekly luncheon, much of it funded by donated food; and the unscheduled services. I also liked the physical activity program, which included an outdoor walking program and the dancing program. The process evaluation showed

an active, well attended Centre. The only thing the Centre wasn't able to put together in the long term (though they did in the short term) was to actively involve aboriginal elders.

Native Pre- and Post-Natal

Counselling Program. The Regina Native Women's Association secured money from the Province to set up a pre- and post-natal counseling program for native women in Regina. The program was delivered by a woman trained in a private sector program.

Success is...

Ninety-eight native women were served over two years, compared to two native women receiving prenatal classes in the previous fifteen years in the entire City of Regina.

After much coaxing, the counsellor agreed to keep a one-page record on each client, addressing such factors as weight gain, smoking, nutrition, and baby's birth weight. The program was able to show a statistically significant reduction in smoking levels, and a very decent weight gain for moms. Ninety-eight native women were served over two years, compared to two native women registering in prenatal classes in the previous fifteen years in the entire City of Regina. The program survived a change of government and continued for another four years, amidst severe budget cuts. These first two demonstration projects had good political support from their Member of the Legislative Assembly, the Premier of the Province. The collection of data was a burden, however, and an unexpectedly large number of women gained exactly twenty pounds. The first counsellor quit in a huff, in part because of the requirements, and it was very difficult to replace her, requiring my personal involvement. In fact, each time the staff person changed, I had to become involved in training and recruiting new people. The political parent organization was not particularly interested in the issue nor in providing services. The project came under attack when the government changed, on the basis that it served *only* 98 women. Without the collection of data, it would have been gone at that point.

Child and Youth Safety Committee.

The Child and Youth Safety Committee was a large (32-person), province-wide committee of agencies and individuals concerned about child and youth safety. It was established by the provincial government to address all the types of accidents and locations for accidents that killed and maimed children and youth in Saskatchewan.

A Provincial Target

The Committee set itself a target which it believed was impossible to achieve, but which would clearly indicate success if it were achieved—a reduction of 25% in child and youth deaths due to accidents. To their astonishment, they succeeded.

Initially, the Committee identified the major causes of death and injury in each age group, and agreed to survey all of the youth in three high schools across the province. Youth was the age group that died and was injured the most. The Committee heard from people doing good work, such as the program to drive youth to and from their high school graduation ceremonies and parties. Driver training was supported, and a proposal, reinforced by statistics, made to the manufacturer of three-wheel recreation vehicles, which rolled easily, to stop making them. The manufacturer stopped making them shortly thereafter. A proposal was made to the province, which licenced drivers, to create a graduated, probationary license, with restrictions on nighttime and other high risk periods, for young drivers. The province adopted it. Initiatives were created to encourage seat belt use, which had been enacted in law in Saskatchewan, the

third jurisdiction in North America and the second province in Canada to adopt seat belt legislation.

As the number of projects grew, individual members of the Committee began to initiate projects of their own, in areas over which they had some influence—the member from Saskatchewan Power set up a program to keep kids off power line polls, the community health nurse from the North Battleford Indian Health Centre, serving a number of large Indian reserves in the area, set up a program to rent baby seats to parents on her Reserve. She won a child and youth safety award, an award created by the Committee. After four years, the Committee assessed its record, and did another survey. Deaths of children and youth due to accidents had declined by 28%! This Committee did its own evaluating.

Pre-natal Nutrition Program. On the advice of the provincial epidemiologist, the pre-natal nutrition program set as its objective *to increase significantly the mean weight of babies born in the North Battleford Public Health Region*, a Region with a large aboriginal population. The advice received was that this was the only certain way to tell if the project succeeded. A complex record-keeping and assessment system was set up, to interview and assess every mother-to-be in the health region. The nutrition counseling was to be done by the nutritionist in the North Battleford Health Unit and by a social worker identified in the North Battleford Indian Health Centre. The public health unit sub-let counseling of all Status Indian women to the NBIHC. The nutritionist trained the social worker. At-risk women were identified through a pencil and paper screening process, and these women were targeted for nutrition counseling.

My Experience with Evaluations

- The most complex (North Battleford nutrition) overwhelmed the program, gobbling up the majority of the nutritionist's time setting up the program. Little time was left to locate and counsel the mothers identified as being at risk. It was stopped before completion.
- The second most complex, Native prenatal counseling, involved completion of a one-page form. It worked but still was burdensome. It continued four or five years, under the new government.
- The third most complex, child and youth safety, set one, stretch goal and succeeded. It survived four additional years.
- The fourth, the seniors health centre, kept service records only. Provincial funding continued two or three additional years.

A Failure

Needless to say, it did not reach its objective—an objective that did not relate to and was therefore unsuitable for a program directed to at-risk women.

This program was a failure, mostly because of unachievable expectations. First, a small-scale intervention could not hope to increase a phenomenon across the Region. Second, keeping track, alone, ate up most of the resources. Third, the primary target group was very hard to reach.

The program screened hundreds of women, but it had great difficulty finding the at-risk women in the community after the screening, which was done in hospital. It only reached and counseled 35 at-risk women in 18 months. Also, while it identified women at risk of having small babies, it was unable to distinguish well enough between small babies that were at risk and those that were not. For example, small women, such as

Oriental women, have small babies, but these babies are not necessarily at risk. Poor women are

at risk, but they are hard to find, because they move frequently and often do not have telephones.

Summary. The most formal evaluation, of the pre-natal nutrition program, did not work. The evaluation took too much of staff's time to set it up, develop a screening program, and screen women, and too little time finding the at-risk women and counseling them. The NBIHC never did deliver any service. The next most formal evaluation, of the Pre- and Post-natal Counseling Program for Native women worked, but the counsellor quit after a year, partly because she had to complete the forms. I always feared I had driven her away with my Evaluation. After she left, the pattern continued—a new counsellor had to be recruited and trained yearly. The requirement for record-keeping for evaluation purposes was dropped after two years as the results were clearly successful. The third most formal evaluation, the child and youth safety committee did work. It achieved its results by 1984. In the next ten years other jurisdictions achieved similar results, in particular as seat belt legislation was passed and enforced. It was not clear what precisely led to the reductions in deaths in Saskatchewan, but we believed it was the combination of many factors addressed, many agencies engaged, many people involved, and many programs initiated. The Seniors Health Centre had the least formal evaluation, but it kept track of the number of people served, which was very high overall, and in each of the programs. It could not point to a specific result, but served many at-risk seniors, in their communities. Anecdotally, it helped people stay in their homes.

An Effective Evaluation of an Innovation

- must make a correct diagnosis of the problem;
- have a reasonable treatment;
- find out whether the program worked; and why.
- costs time, effort, money and courage to accept that evaluation must be equally open to finding either failure or success.
- contributes to a greater understanding of why some programs work and thus advances the capacity of government to fulfill its multiple missions.

Formal Evaluations of Innovations

Gerald Halpern (1998) wisely said:

Innovative programs differ from mature programs both because the program need is more salient (meaning that more people pay more attention to the need and to the proposed solution) and because the program design is more a design than a finished product. Innovative programs have to be grown from initial "ill-shapen birth" into a well formed program.

This transformation typically requires three stages: development, installation and maintenance. To be able to determine whether an innovation worked, it must be clear, in full detail, first, what the purpose to be achieved was (the social problem to be alleviated) and second, what the innovative treatment was that was delivered and received (not simply what was planned). Without these conditions, the reliability of the answers to the questions will be uncertain. This is an analytic and reductionist process. Tool #8 offers some guidance in evaluating innovation results.

An effective evaluation has many necessary components (see box). Having said that, it is important to moderate expectations about the effectiveness of innovative programs. A higher proportion of innovative programs than mature programs will be found wanting. It is plainly not reasonable to believe that all innovative programs will work. Mature programs have worked out their problems; new programs have not.

Moreover, there are a number of factors that work against evaluation. First, it is based on a stimulus-response logic track that humans rarely conform to, especially outside the laboratory. In reality, those responsible for implementation change the model as they go, based on their own experience, expectations and learning, so that the logic track gets broken and it is impossible to tell whether the intervention was the important factor. Second, humans are relational. It is almost impossible to sever the intervention from the people delivering the intervention and the people receiving it. They affect each other. Third, evaluation is sometimes used as a form of control rather than as a source of information, to force implementers to follow the designs of planners, or at least it is perceived that way. Fourth, the results are often irrelevant. Frequently, the most challenging problems faced by new programs are not issues of success or failure but ones of acceptance–legitimacy,

Tool #8: Evaluate Results

47. What were the results expected (Outputs and Outcomes)?

48. Did you have a good experience with the innovation?

Yes " No " So-so " Elaborate:

49. Were you successful in:

(a) Accomplishing your implementation strategy? Yes " NO "

(b) Following your human resource strategy? Yes " No "

(c) Keeping the focus on results? Yes " No "

(d) Integrating the innovation into your organization? Yes " No "

50. Have you established appropriate markers of success? Yes " No "

(a) What are they?

51. How will you collect and recognize positive or negative evaluations from political parties, the public, the target group for the innovation, the public service? Will you use:

Consultation Yes " No "

Polls Yes " No "

Media scanning Yes " No "

Election results Yes " No "

Other: _____

continuance, and acceptance as the routine way of doing things. Something that works in the short term but is never accepted by those who must use it makes little difference. Fifth, there is a large range of environmental factors that influence all aspects of the program from beginning to end. Finally, it rarely turns out to have been worth the (strenuous) effort for those who must put the evaluation into place. They must agree on clear goals, develop performance indicators, establish baseline data, set targets for future performance, track progress and periodically gather results for comparison with the targets.

Evaluation Perspectives. In program evaluation, the key questions are whether the observed results may reasonably be attributed to the fact of the program and whether the observed results of the program are judged to be of value. In good evaluation, the focus is on program outcomes, the longer term results that are expected to satisfy the program's objectives. This is the effectiveness issue. The client for program evaluation is often the government minister, the president of the board, or the client. The outcome information is intended to inform program continuation decisions, but funding agencies are rarely prepared to wait long enough for the information to be available before making their decisions.

Two main evaluation points of view:

- program evaluation (outcomes)
- performance measurement.

Performance measurement also looks at results but tends to focus on the early results, the more direct outputs of the program. Attribution at this level is often taken for granted. The primary client for performance measurement is usually management in its concern for program improvement. Key elements are effectiveness (are targeted outputs being met?) and efficiency (has the ratio of outputs to resource inputs been maximized or at least reduced?). Performance information is designed to inform resource and program design decisions.

The theory of a program is the set of attributed links between program operations and program results (outputs, impacts and effects or consequences). Strong theory (theory with evidence-supported links) increases the probability that the desired outcomes will occur and that the program will be the most plausible explanation for the outcomes observed. The truth is that evaluation, while conceptually easy, is difficult in practice. Conducting trustworthy evaluation is not easy, and it is especially difficult in the public sector. The two most important factors that make government programs difficult to evaluate (and of course difficult to manage) are goal complexity and weaknesses in the means-and-ends linkages of a program's theory.

While there is a focus on performance measurement now more than ever in government, it often zooms in on the accomplishment of processes or pieces of wholes and the creation of outputs. Rarely is whether the impacts desired are actually accomplished effectively determined.

The consequences desired, such as individual well-being, ecological health, social equity and socioeconomic equality are so general, so **hard to measure**, and it is so difficult to secure agreement about specifics, that they have tended to be de-emphasized.

Inevitably, the accent has shifted to that which can be measured. The consequences desired, such as individual well-being, ecological health, social equity and socioeconomic equality are so general, so hard to measure, and it is so difficult to secure agreement about specifics, that they have tended to be de-emphasized.

Instead, outputs expected to be inputs to creation of these states are accentuated, such as economic development, technical innovation, and programs delivered. While the outcomes expected are often social, the inputs are often economic and technical. They are, thus, not all that likely to succeed, as there is no direct line in logic or reality from the economic and technical to the social.

A convergence on results is most likely with elected governments that have detailed platforms and organizations with strategic plans. These commit governments and organizations to specific objectives that then create external and internal pressure for them to be carried out. Personally, I am astounded at the number of promises governments and organizations make that are not carried out. Strategic plans help to highlight outputs as opposed to inputs (consultation, planning), and costs or implications (for intermediaries such as staff or suppliers). Some of the more sophisticated approaches have turned goals into processes, such as turning the former focus on the goal of public and employee consultation into a necessary process in creating client satisfaction.

The role of evaluation is that of servant to program design. Evaluators should work with innovative program managers to strengthen the program theory, test operational elements of the program, formalize the trials by which the program is made increasingly efficient in producing outputs, and conduct the necessary research to test the linkages between operations, outputs, and effects. This is the means by which evaluation can serve the objective of program improvement and control.

Learn from Feedback

Keeping with the engineering metaphors, let's consider the role of feedback in innovation. The Meriam-Webster's Dictionary defines feedback as the transmission of evaluative or corrective information to the original or controlling source about an action, event, or process.

Feedback performs at least two functions in

the innovation process. Firstly, feedback allows communication about the results to get back to those proposing and implementing innovations. It is not only—although it is a—question of it being hard to hear negative messages. It is also that there is a conspiracy not to accept what is really going on. Well, maybe not. But it can be hard to get a clear picture of what really happened to and with an innovation.

Secondly, while evaluations are the best information we can get about our innovations, they are often not ready in time to be of use. In effect, informal feedback or commissioned opinion surveys replace evaluation. It is a bit less formal, a bit less scientific, but it does in a pinch.

After all, it asks the same people about the process and the results as the evaluation will query.

Neither appropriate evaluation nor its communication, feedback, is likely to happen unless it is valued by the departmental career gatekeepers. Evaluation must be rewarded in its own right and it must be integrated with programs if it is to be believed by the implementers. Performance measurement requires staff conviction and empowerment. Giving people the capacity and

Feedback performs at least two functions:

- allows communication about results to get back to those proposing and implementing innovations.
- is less formal, less scientific, but it does in a pinch

authority to evaluate their programs is not enough. Busy people set priorities, do what is important to them and what is important to their superiors in the hierarchy.

Empowerment has to occur within an organizational culture that encourages and rewards continuous learning. Staff will learn more about their programs and will use the learning to improve programs if they see this is valued by their corporate culture. (Halpern, 1998) Only then will the organization that innovates learn from it. Tool #9 offers some ideas. Empowerment will be discussed in more detail in the next chapter.

Conclusion

In order to innovate successfully, governments need mechanisms. Several key aspects of innovation can be influenced by the politicians and civil servants involved. Factors essential to the capacity of organizations to produce and implement innovative policies and programs include public acceptance, opportunity, political-bureaucratic-leadership-employee will, good ideas, a supportive organizational culture, adequate resources, and effective implementation, evaluation and feedback. These elements make possible the implementation of innovative programs. Especially in the public sector, but also in the private and third sectors, it is important to look beyond the boundaries of the organization to examine the social and political context for innovation.

Several conclusions can be drawn about innovation. No government or other organization is the first to do everything, but an innovative organization is an innovator and an early adopter of many innovations, and regularly attempts to bring about significant reform. The small Blakeney government, for example, implemented a

Tool #9: Learn

52. Did you assess your learning as an organization? Yes " No "

53. What did you learn?

54. What went well?

55. Do you need to change current practices? Yes " No "

56. What should you do differently in implementing another innovation?

57. How will you build a positive climate for innovation out of this experience?

58. Are you treating the risk and possible failure from innovation as an opportunity for learning? Yes " No " How?

59. Are you celebrating success? Yes " No " How? _____

60. Are you communicating it? Yes " No " How? _____

61. Are you celebrating failure and the opportunity to learn? Yes " No " How?

62. How will you create and retain an organizational memory of it?

great many innovations in a short period of time—over 160 in the course of the eleven-year government; moreover, these innovations had some success in accomplishing their objectives (Glor, 1997; Glor, 2000).

It is difficult for an organization to remain innovative—innovation tends to wind down. Under the same leadership, most will become less innovative over time. This is due to several reasons. The organization becomes absorbed with the consequences of some of its earlier actions, and management of the innovations already introduced. Once the bulk of an initial platform has been implemented (all leaders have platforms), it can lack a dynamic agenda for change. The public looks to government to make changes, to deal with problems. If no process for renewing ideas is put in place, the organization will become less innovative. Innovations that are not implemented fairly quickly begin to get out of date—the financial situation can deteriorate, proponents lose interest, the economy and people move on in their life cycles, the public mood can change, for example, from emphasizing individual benefits to highlighting publicly shared benefits. Finally, incremental funds that had been available with which to implement innovations can disappear, and new or different programs can only be implemented through reallocation. This is hard to do. Few people who have a benefit wish to give it up so that someone else or they themselves at another time of need can have it instead.

Many of these factors affect everybody, not just innovators. But innovative organizations also have particular needs compared to organizations that are only introducing one or two innovative programs. Key among those needs is leadership will and excellent management. Without both of them, much innovation cannot occur.

Some innovators make no special effort to communicate to others about the innovations they have introduced. An innovator's focus is often provincial, yet communicating the value of its innovations to employees, suppliers, clients, shareholders and the public is important. Without this kind of communication, innovation failures will continue to be better known than innovation successes.

Having said all this, the process used and the impacts and consequences are what matter most to the public. Everything said so far, and especially innovation evaluations, suggest successful implementation of a pre-determined innovation is good, and failure to implement successfully is bad, implying the will to succeed is paramount. Is it though? And over whose dead bodies? Chapter 5 explores this notion more thoroughly. Chapter 6 asks: "How can we make the right choices?"

Conclusions about Innovative Organizations

- An innovative organization is an innovator and an early adopter of many innovations, and regularly attempts to bring about significant reform.
- It is difficult for an organization to remain innovative—innovation tends to wind down.
- Innovative organizations need leadership will and excellent management.
- Without communication, innovation failures will continue to be better known than innovation successes.
- The process used and the impacts and consequences are what matter most to the public.

Chapter 5: Innovation is About Individual Commitment and Action

Introduction

Based on our discussions about developing and implementing innovation so far, it is clear that commitment and will play an important part in innovation. Chapter 5 brings into focus just how important they are, while section III balances that point of view with a discussion of the ways in which innovations are not solely a question of choice.

Chapter 5 outlines the lessons learned from an innovative government. It then reminds us of the importance of empowering staff to achieve innovation as discussed in more detail in chapter 11. Next, it discusses the issue of resolve from three perspectives—that of society, managers, and employees. Finally, chapter 5 concludes by looking at the major weaknesses of the individually-centred approach.

Innovation Through the Lens of Reductionism²²

Planned change and implementation can be considered sequential stages of the innovation process—the decision-making and implementation stages. The will-based approaches of planned change and implementation are valuable to the practitioner. Under the constant pressure of political, client, stakeholder and employee demands, few managers have the time to analyze the issues or the processes they deal with in depth. Instead, they prefer recipes. Policy analysts spend some time on these issues, but tend to do so with a short or medium term focus, in the context of acceptability to ministers, deputies, stakeholders and clients. Again, recipes are sought and take over.

A primary characteristic of the practitioner is his/her need to draw conclusions, and quickly. Studies using the approach of planned change and implementation frequently draw conclusions, based on a limited number of cases studies. These conclusions tend to be about best ways

Use of pre-approved paragraphs to answer ministerial letters. A response to a citizen becomes a collation of pre-approved paragraphs. The results are sometimes a little strange, although the several levels of people who read and correct the correspondence usually catch any problems. In Saskatchewan, on the touchy issue of development of uranium, the Premier's office also developed pre-approved paragraphs for use in the Premier's correspondence in response to a write-in campaign. Most of the time, however, ministerial correspondence was dealt with in a more respectful and integrated manner. It was passed to the officer responsible to respond. He then answered "on behalf of" the minister, under his own signature. More than once, I heard officers on the telephone to the person writing a letter, discussing the issue and explaining the government's position in detail.

²² Most of the following section was previously published in the Conclusion of Eleanor D. Glor. 2000. *Is Innovation a Question of Will or Circumstance?* Ottawa: The Innovation Journal at <http://www.innovation.cc> under Books.

to secure skills needed, motivate staff, manage issues. Management is clearly seen to be in control. The studies identify best practices and lessons learned. The scientific method has demonstrated that drawing conclusions based on a few cases is usually invalid—but the pressure is on, so it is done. This leads to an approach that says some change is better than no change, any direction is better than no direction. The unstated assumptions and possible unintended consequences are not considered. The innovations are rarely tested first—this is, using contradictory thinking, assumed to be too costly. Being seen to be doing something is seen as more important than being effective. The pressure to act too quickly often comes from a political level that wants to be active.

In this environment that refuses to accept uncertainty and study innovation carefully, every action is either based on a formula of some sort—tradition, best practice, good management—or it is an experiment. Failure is frequent, but often hidden. Sometimes the results are treated as successes, even when they are not. Failure is ignored or abandoned, but not explored for learning. A great deal of promotion but little evaluation occurs. Unfortunately, in this environment little learning occurs and the predictability of action remains uncertain. It is certainly wasteful and can even be dangerous.

Some Optional Approaches

From the will-based perspective—the position that people can choose to make changes, which is often that of the public servant—the box shows a number of strategies that can be used to carry out agendas. Among the strategies are a focus on coordination, creating inclusive understanding and using comprehensive approaches. Coordinating internal activities improves the capacity of the organization to focus. One new tool for internal coordination is both horizontal *and* vertical expenditure review.

Structural solutions can also be used—such as creation of horizontal departments that address issues or regions rather than professions and service types. Another important strategy is doing evidence-based decision-taking. This is the ultimate in a rational approach to decision-taking, and is reliant on developing evidence and comprehensive reporting. Program-based budgeting and evaluation or a balanced scorecard can help to assess the cost and success of programs. Comprehensive and

consolidated reporting organizational finances can also allow the monitoring, controlling and reporting of finances effectively, and together with careful management of revenues, can aid budget control. Regular reports to the party, the executive or the board of governors on progress with programs creates an evidence base. Comprehensive analysis of activities, and adequate information bases and control mechanisms are needed across domains, and permit appropriate accountability. Accountability is created through the budget process, assessment of program objectives, measures, outputs and outcomes; the Budget; and annual reports on progress on the

Comprehensive Approaches- Saskatchewan

- Sectoral responsibility in central agencies
- Horizontal and vertical expenditure review
- Structural-horizontal departments
- Leadership
- Horizontal programs?
- Horizontal reporting

political or corporate agenda. Prudence and frugality are linked to a commitment to fiscal accountability: Candor is further enhanced by access to information legislation. A focus on results or keeping the end in mind, in Steven Covey's terms (Covey, 1989), make the job clearer and in some ways easier. Answering the questions asked, creating the programs and services promised, and serving the public well must be the focus. These good management practices are an important part of a basic understanding of how to manage innovation and change.

A few additional ideas are outlined below.

Create an Innovation Fund. Government and corporations could be much more quick in their responses if a willingness to test new ideas became a part of the culture. As it stands, ideas that have not been well tested often become party and then government policy, and are then implemented as full programs, without ever being effectively tested. This is a waste and irrational. A benefit of demonstration projects is that, if successful, they help build support for initiatives. An innovation fund for testing innovations, under the control of employees, not politicians, boards of governors or executives, outside the media glare, and mostly outside accountability systems, could help organizations function better. Alternatively, independent agencies could be funded to develop and test inventions, like *social inventions* (Conger, 2002). They would be most useful if it remained within government or the corporation, but also less free to try new things.

Learn How to Manage Innovation.

Managing innovation is not the same as managing an existing program or service. Innovation needs freedom of thought and action; and access to emotional, financial, managerial and organizational support. The impetus behind innovation also tends to run down, as the original innovators move on. Managers are left to keep it going. Managers need to recognize and recruit the skills and capacities needed for innovation. Some of them are outlined in the box. Innovation is not a simple task!

Managers need to help staff to be and create the conditions for staff to be creative. They need strategies for funding innovation. Some programs have funded infrastructure (e.g. the Canadian Foundation for Innovation funds laboratory equipment and researchers), others have funded innovative programs (e.g. the Ontario Health Innovation Fund). An official of the Ontario Health Innovation

Fund told the Innovation Salon that a better strategy for their fund would have been to fund innovators rather than projects. They found it hard to pick innovative projects, because established institutions were better at preparing applications than individual innovators, but the

Skills and capacities needed for innovation consist of: (1) leadership and human development skills; (2) interpersonal, listening and communication capability; (3) values such as a commitment to equity, openness to change, flexibility and tenacity; (4) clear personal and professional objectives and a sense of balance; (5) policy, research, program planning, implementation and evaluation ability; (6) financial planning, control and disclosure capacity; (7) technical skills such as legal, economic and resource-specific ones; (8) management and coordination expertise; (9) a long-term perspective; (10) political skills; (11) creativity, problem-solving and integrative capability; (12) adeptness at lateral thinking, teamwork and cooperation; and (13) negotiating, tactical, conflict resolution, and in-fighting ability (Glor, 2000a: 142).

individuals were more innovative. Moreover, the Fund could identify the innovators, but the innovators would not necessarily describe themselves as being innovative.

Often managers also need to deal with the problems that arise from innovation, such as the need to find or reallocate money, and the things that go wrong. Managers need to learn about team building, risk assessment, and innovation evaluation. Innovations should not be evaluated like regular programs (Halpern, 1998). Above all, managers need, to the extent possible, to move innovations out of the usual scientific management, hierarchical structures of government. Some leaders have created separate research and development organizations, that develop ideas to a certain point, then have moved the projects back into the line organization when it was ready to become a program. Alternatively, the whole organization could become a *spaghetti organization* (Kjolberg, 2002).

Create Horizontal Networks. Intersectoral, inter-disciplinary, and inter-jurisdictional exchanges and projects can be quite innovative, and can succeed in overcoming barriers that others cannot manage. The Citizen-Centred Service Network, led by the Canadian Centre for Management Development (CCMD), provided an environment for the federal government, provincial governments, academics, and service providers to discuss, research, and plan how to improve services. The staff of CCMD subsequently moved to the Treasury Board Secretariat to carry out some of those plans. One product of those efforts was four national surveys of users, another was Service Canada (www.servicecanada.gc.ca), providing one-stop access to federal government services. The 76 *Service Canada* in-person access centres build on existing departmental networks. Access centres provide face-to-face assistance, as well as printed materials on the most popular federal programs and services, and access to federal government services through the internet and telephone channels.

Empower Staff. None of this is of any use if staff working on innovations are not empowered to do so. Managers could set the stage for innovation by empowering staff. Some steps managers could take are outlined in the boxes. As innovations are created they could be moved to report directly to senior management, where they could be left alone. If appropriate, they could be moved outside government to report to a third sector agency, while they test the idea.

Empowerment allows employees to feel commitment without the necessity of a commitment to the political party in power. This is one of the reasons pilot or demonstration projects are important to the

Steps Toward Empowerment

Set the stage. Build on the results of employee surveys by doing the following:

- An in-depth survey of employee health, desires and ideas for improvements. It could create a profile of how staff feel and what allows them to feel empowered.
- A cultural survey.
- A National Quality Institute Workplace Health Self-Assessment based on five key areas—Leadership, Planning, People Focus, Process Management and Outcomes—or
- A National Quality Institute Employee Feedback Questionnaire.

Put in place an empowerment program. See Tool #20, Create Employee Ownership.

Evaluate whether your empowerment program has actually empowered staff (see chapter 11).

Move the innovation outside the regular reporting hierarchy, at least to start with.

public service. Where the public service sees the direction politics are headed or it can see the need for new programs, but where a political party supporting these initiatives has not yet been elected, it is possible to set up pilots to determine their workability. Both those opposed to these initiatives and those supporting them have an interest in the results of demonstration projects—the former in seeing them fail, the latter in seeing them succeed.

While it is evident intentionality, commitment, will—whatever you wish to call it—has a role to play in innovation, almost all of innovation is in fact presented this way.

Conclusion: Weaknesses of the Individually-Centred Approach to Innovation

While innovation is partly about individual action on the part of managers and employees, there are also senses in which it is about collective action. Rogers (1995) identifies a weakness that can grow out of a focus on individuals in innovation—the individual-blame bias. This bias ignores the role of the system as a whole, of power, and of the important role that politicians, senior managers and change agents play in setting the context for innovation. The approaches used, and which groups they empower and disempower are typically more important than which individuals they empower and disempower.

Chapter 6: The Ethics of Innovation: Making the Right Choices

"A world in which poverty and inequity are endemic will always be prone to ecological and other crises." (*Our Common Future*, The Brundtland Report, pp. 43-44)

Introduction

The ethics of innovation are treated in this chapter from several perspectives. The chapter looks both at how innovation is done and at what is done. How and what are of course not completely separable, but it is useful to consider them separately when thinking about innovation. They are considered in two contexts—individual and social. Chapter 6 considers where the good of the public, as individuals, as groups, and as a whole lies in relation to innovation. It reflects on the innovation and the upstream and downstream effects: how innovation is done, the consequences for employees' autonomy, what is done, whether the innovation is successfully implemented, and the consequences of innovation.

Doing Innovation the Right Way

The way things are done in the workplace, including the relationship between employees and employers, have an ethical component. In uncharted territory such as innovation, this ethical element is highlighted. How innovation is done can be considered from at least three perspectives: the perspective of the individual, the perspective of the organization, and the perspective of the process that is employed to create the innovation. Keep in mind that none of these perspectives gives value to the impact on society, which is addressed in the next section.

Herbert J. Taylor, president of a small aluminum cooking-utensil company, developed an ethical test for his company's activities in 1932. He later became president of Rotary International, a business and community leaders' fraternal organization—Rotary adopted his four ethical principles (see box). Rotarians commit to behave in accord with these four principles in their professional and personal lives. Rotarians address ethics from a personal perspective.

Modern company and government missions tend to encapsulate what the organization does. Sometimes, though not always, they commit to a set of values and to carry out their mission as a group, as a corporation. Even when they do, there is often a striking disconnect between commitments made and actions taken.

The processes used in the workplace have an important ethical component. The empowered worker is healthier, more active, and more committed. As indicated in chapter 3, enabling self-actualization and empowering participation are much more likely to produce these effects than processes such as

Tool #10: Innovate Ethically (Individual)

The Rotary Club's 4-Way Test:

63. Of the things we think, say or do (*of the innovation I am creating*):

(a) Is it the Truth? Yes " No "

(b) Is it Fair to all concerned? Yes " No "

(c) Will it build goodwill and better friendships? Yes " No "

(d) Will it be beneficial to all concerned?
Yes " No "

Source: The Rotary Club's 4-way test:
http://www.rotary.org/whatis/part_II.htm#4way on
August 28, 2000

delegation. The way things are done in the workplace, including the relationship between employees and employers/managers, have an ethical component. So does the way an organization relates to its suppliers, clients, and society as a whole. Some ideas for encouraging both individual and social ethical behavior in the workplace are outlined in Tool #10.

Individual Ethics: Behavior of the Individual in the Workplace

The Industrial Revolution changed the relationship between workers and employers. In Europe, the predominant relationship had been feudal, with serfs tied to the land and their landowners. The only free people were landowners, aristocrats, craftsmen, and those involved in commerce. As the British rural economy shifted to raising wool for the new, mostly urban woollen mills, the enclosures forced now-unwanted farm workers off the farms and into the cities, where the Industrial Revolution provided work in conditions even worse than the workers had experienced on the farms. With the introduction at the beginning of the 20th century of Frederick Taylor's scientific management, a reductionist approach to skilled labor, expert workers faced de-skilling. Assembly lines broke skilled activities down into small bits that unskilled workers could do. Industrial unions grew up to defend workers in these environments, as the craft unions declined. Corporations sought to make labor dispensable resources that could be easily and inexpensively "laid off" when demand declined, as it regularly did with the economic cycle. The large, modern, bureaucratic corporation and government recreated some security of jobs, for salaried workers who gave up a number of hourly labor's benefits, such as overtime. The most recent changes to this structure have introduced insecurity of sinecure for salaried (white collar) workers as well.

The New Public Management²³ has encouraged consideration by managers of the organization's needs only, and a reductionist, behaviorist approach to employees. Just as Geertz (1973) declared behaviorism "dead", managerialism and the NPM adopted its approach.

In an environment where workers are not valued, their behavior becomes more unpredictable. Clarkson, Deck and Leblanc (1997) have said it well:

In trying to become more efficient, the modern corporation has sold off some of its most valuable 'intangible' controls: trust, loyalty and commitment.

(Clarkson, Deck and Leblanc, 1997: 1)

Three things are striking about the

**Tool #10: Innovate Ethically (Social)
(cont'd)**

(e) Is my innovation reversible, if necessary?

Yes " No "

(f) Can I/we live with the consequences, if things go wrong? Yes " No "

Will my innovation decrease suffering and increase well-being?

(g) Short-term Yes " No "

(h) Long-term Yes " No "

(i) Whose? _____

(j) At what cost? _____

²³ The American form was President Reagan's decentralization and tax cuts and Vice President Gore's reinventing government program.

above quote. The first is that the authors have recognized a down side of the New Public Management, which is based on private sector approaches. The second is the assumption that employees need to be controlled. The terrible consequences of control in the workplace for employee health and well-being have been identified in chapter 3. The third is that this loss of commitment has had important implications for the ethics of the workplace.

At the level of the firm or government, attempts to influence ethics have shifted from a requirement for agreement to a set of principled objectives made in an oath of office, to a program that it is perceived should and can control beliefs and behavior. This issue has definitional, empirical and ethical implications.

- Types of Ethical Codes:**
- Code of conduct
 - Code of practice
 - Code of ethics

One of the principle elements in ethical control programs has been formal codes of ethics. While the terms have often been used interchangeably, by me as well as others (e.g. Glor, 1994-5), there are actually several types of codes. Three types have been recognized by the Society of Management Accountants of Canada. A *code of conduct* characterizes what employees must and must not do: what is not to be done, given the consequences. A *code of practice* identifies “how we do things around here” and “what we do because it is our character.” (Clarkson, Deck and Leblanc, 1997, p. 5). A *code of ethics* outlines values, principles, and the obligations an employee has to her employer. The three types of codes are compared in Table 2.

Table 2: Comparing Codes of Ethics

Organizational Ethical System	Ethical System	Level of Attention	Content	Focus	Equivalent Developmental Level	Level of Intervention
Code of Conduct	Thou Shalt Not e.g. Jewish 10 Commandments	Individual behavior	Rules, consequences	Respond to the company: company-centered-ness	Young child	Imposed control
Code of Practice	Character e.g. Plato, Aristotle	Individual character	Attempts to define what it means to be good	Respond to the company: company-centered-ness	Child of 5-12	Both internal and external control
Code of Ethics	'Love one another'. Obligations e.g. Kant	Individual responsibilities	Values and principles	Respond to the company: company-centered-ness	Teenager	Self-control

None. Personal responsibi- lity	Greatest benefit for the greatest number e.g. J.S. Mill	Majorities, others.	Care for self, concern for the other	Respons-ibilities to others: both the individual & the company	Adult	Self- directed: Some personal security, ability to be concerned about others.
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Source: Partially based on Clarkson, Deck and Leblanc, 1997.

The idea of a code is based on the premise that employers need to be protected from employees. It also assumes that rules or guidelines in the absence of personal commitment to an issue or employer can work to control behavior. Failing that, the person can be punished without unacceptable cost to the employer—fired for cause, including causes that were not previously grounds for dismissal, such as failing to create a positive perception of the employer in the public eye. It is a stick and stick approach—there is no carrot except a job.

Whether behavior can be controlled through codes and punishment, empirically, does not seem to have been explored. The justice system, having tried this approach, would be unlikely to suggest it works very well. Even the church, which has a carrot to offer, albeit a long-term one, has had problems encouraging ethical behavior. As well, the literature on the acquisition of ethics does not seem to agree—it suggests ethics are acquired in childhood and adolescence, not as an adult when working for an employer (Glor, 2001e). It is much more likely that employees will be ethical if the work they do, the way they are treated and the ethics of their employer motivates them to contribute to their employer and conforms to their personal ethics.

International Anti-Corruption Efforts.

On a broader level, several international agencies, such as the Council of Europe, the OECD, and the World Bank are promoting anti-corruption programs and having active ethics initiatives in place. Their motivations have included the idea of establishing an ethical level playing field and, in the case of the World Bank, emphasizing that corruption hurts the poor most, because the poor cannot make pay-offs. The international agencies suggest these programs have some potential for raising the ethics bar on a wider level. The OECD has recommended ethics management as part of the New Public Management. Despite promotion of anti-corruption programs by major international institutions, the United Nations Association's research in sub-Saharan Africa has shown that there is little in the way of implementation of anti-corruption programs, because of poorly trained staff, lack of funding, and a lack of will.

These approaches raise questions about for whom the level playing field is being created, i.e., who benefits: international business, or the people of the country, and if both, in what proportions. This is the balance the World Bank in particular is raising when it emphasizes the implications of corruption not only for international trade and for the country, but also for the poor. According to the World Bank, at the international level corruption has worsened during the 1990s. The reasons for this, whether the loosening up of formerly controlled economies or an increase in personal corruption or a worsening of poverty or some other social cause or some combination of these options is not clear.

If the cause is not clear, then it is questionable whether a solution can yet be chosen. This raises the question of whether *model* values and codes are a good idea—the Council of Europe and the OECD have both prepared such models. An alternate approach is based on values and principles, prepared by the department/government/corporation involved, perhaps with input from stakeholders (shareholders, employees, NGOs, the public). Both these approaches raise the key question of *whose values*. Such programs will only be credible with stakeholders if they were involved in the definition of values and principles, and if their values are reflected in them. A consultative approach was recommended by the Government of Canada's Tait Report, a more humanistic way to deal with this problem. Following the consultations and discussions recommended by John Tait, however, a code of ethics with penalties, has been introduced for public servants. Public service penalties are more severe than those for politicians.

An Underlying Theme of Control

Many corporate ethics programs have an underlying theme of control (mostly of employees) and social engineering. The Government of Canada's program for guiding Cabinet ministers and Governor-in-Council appointees (the program does not apply to Members of Parliament [MPs] or senators) does *not* have much emphasis on controlling, but concentrates on guidance. The Office of the Ethics Counselor, that provides the advice, reports to the Prime Minister. The current approach does not give the Ethics Counselor the right to do investigations nor autonomy from the Prime Minister. Instead, Cabinet ministers and Order-in-Council appointees are strongly encouraged to review their situation with the Ethics Counselor. The program is based on the Prime Minister's will and the trust between the Office and political officials. This trust-based system seems to be working well, according to Howard Wilson, the Ethics Counsellor. It is weakest when the prime minister is the target of criticism, as he was from 1999 to 2001. All but two provinces have ethics counselors for political officials now, one exception being Manitoba. All do not have codes of ethics.

Most of the ethics programs that apply to employees of governments, as opposed to political appointees, include a statement of values or principles, sometimes a code of conduct, and compliance measures. Only a few include an explicit implementation program, such as education or dialogue about ethics. Some involve follow-up reporting and auditing. The federal government's ethics program includes a Conflict of Interest and Post-Employment Code, a dialogue on ethics, and auditing.

Elements of Ethics Programs:

- Statement of values or principles
- A code of conduct or compliance measures
- An implementation program
- Follow-up reporting and auditing

Are ethics programs effective in improving the ethics of workplace behavior? If so, which particular elements are most effective? This is an empirical question, though I have never seen an attempt to answer it. The federal Auditor General (1995, 2000) asked only whether public servants could answer ethics questions correctly (whether they were knowledgeable) and whether an ethics program had been implemented effectively (whether there was a program in place).

A large proportion of private sector companies have introduced codes of ethics, in the order of 60 to 80 per cent (reported at the Conference of the International Institute for Public Ethics (IIPE), Ottawa, Canada, September 24-28, 2000). Some governments have also done so. Why have they done so? Have they introduced anti-corruption programs in response to greater corruption in the workplace? If so, where has this increased corruption occurred? Why has it occurred? And where is the evidence? Or, have corporations and governments introduced these programs because the level of corruption in the workplace was always too high, and nothing was done about it? Or, has corruption increased because of the ruthless actions taken in downsizing companies, non-profits and governments during the 1990s and the increased workload and stress that have accompanied them? Or, is it the result of media coverage of corruption in the public and private sectors? Or, has there perhaps been no increase, but employers fear there will be one? Or, is it because employees are being forced to change? Or, have programs been introduced not because there has been an increase in corruption, but because such programs are now promoted as part of good management?

What is the Problem?

To my knowledge, little work has been done on the nature of the problem when employees behave unethically, other than to punish them. More and more frequently, the consequence is the loss of one's job. If it is only feared employees will behave unethically, there may not actually be a problem. If there is a problem, is it actually a problem of poor ethics? If this is the case, I have seen no exploration in the context of these programs of the dynamics of how people develop morally and acquire their values, when they are susceptible to changing those values, and therefore how employers can most effectively relate to employees' ethics. The academic work on this subject would suggest that adults are not likely to change their fundamental values, but that they are socialized at work in relatively minor ways (Glor, 2000b).

Or is it a problem of the employer-employee interface? Are employees feeling jerked around, maltreated, mistrusted, and controlled, and are they therefore reacting by lashing out at the employer by stealing and bad-mouthing their employer? Again, this has not been answered empirically. Has corruption in the workplace increased over time or is it the same as always? If there has always been some unethical behaviour in the workplace, is there a problem? If there is a problem, is it because the nature of employees' behaviour has changed or because of a new context at work. Downsizing and reengineering have deliberately increased the work employees must do, and have eliminated the slack that allowed employees time to discover better ways to do their work and to meet their social needs at work. Is this a factor? If there has been an increase in corruption, who is being corrupt? Is it workers or managers or both?

If we are not clear what the problem is and why, when we introduce ethics programs in the workplace, we are not likely to have much effect upon workplace ethics. Certain kinds of problems seem to be potentially susceptible to ethics programs, while others may not be. The kinds of problems that might be susceptible to ethics programs are ones where employees are basically ethical, but there are problems of some sort. These might include, first, situations where employees are not certain about what is right in some situations. An education program might help with this. Second, it might work in situations where employees are not very aware of the ethical aspects of their jobs. In this case, a dialogue might help. Third, an ethical program

might help if employees are saying nothing when they see unethical acts being perpetrated. A formal reporting process might help them figure out what they could do and where they could go. At the same time, the Health Canada discussions acted as a prelude to introduction of the federal

government's new ethics code. What is new in this code is the introduction of a formal procedure for raising concerns about ethics. At the same time, the procedure prevents employees from going public with their concerns, introduces penalties for doing so, and introduces a new public service ethics advisor, usually at both the departmental, and at the government-wide level. The first advisor in his first report emphasized his weakness.

Situations that are not likely to be susceptible to anti-corruption programs are ones first, where corruption is endemic in a society, and many or most transactions involving authority are handled on the basis of gifts or pay-offs. I would flag for you, however, the case outlined in chapter 11 of the Grameen Bank in Bangladesh. Despite functioning in this kind of society, it has been able to create a non-corrupt environment in the Bank (Holcombe, 1995). Second, an ethics program for employees is not likely to help where employees are so badly paid that they either must demand payments from clients or take on second and third jobs during work hours in order to support their families. Third, an ethics program is not likely to help if employees feel undervalued, controlled and manipulated. This could arise, for example, if a formal process for reporting corruption were introduced not to make it known but to keep employees from going public with it (never a career-enhancing move). I am not aware of much work on ethics programs that acknowledges these differences and makes clear the program's objectives. One exception is the new ethics program being introduced in Health Canada. It has stated clearly that its objective is to increase knowledge of and awareness about ethics issues. No more. This strikes me as a reasonable objective that could actually be accomplished. Whether it improves employee behavior will likely depend on whether one of the several possible scenarios outlined in the previous paragraph exists in the individual working units of the department.

Ethics programs unlikely to work when:

- corruption is endemic in a society
- employees are badly paid
- employees feel undervalued, controlled and manipulated.

Government of Canada's Ethics Program

- deputy ministerial task force & report
- several Auditor General reports
- leadership: deputy minister co-champions, male and female
- dialogue on ethics with its managers, then more broadly
- case studies for discussion
- importance emphasized to deputy ministers and to public servants
- consultations with public servants to develop a Statement of Principles of the Public Service of Canada
- Policy on the Internal Disclosure of Information Concerning Wrongdoing in the Workplace (whistle blowing)
- Public Service Integrity Officer appointed
- departmental and legislative initiatives, including legislation concerning lobbyists

The Risk

The risk with the scattered, stick-stick approach is that the employer's devaluating of the employee's integrity will induce the behavior feared. In assuming that each employee is a potential thief—and apparently just as bad, from the perspective of the federal code, a potential nay-sayer—the employer is treating each employee as if he or she is just that. In its ethics program, the Government of Canada has been considerably more sophisticated. While it has a code that makes provision for firing staff on these grounds, it has created a dialogue on ethics, initially with its managers, then with its employees. It has created case studies for discussion, but has not defined one answer to each issue. The response of some of the participants has been to search for the one best answer, but the responses from those presenting the sessions have been in the domain of processes rather than solutions. Risk assessment has been suggested repeatedly as an important process here. In fact, even when the issue involved has been an innovation, the first suggestion was a risk assessment—in an effort to find one best process. While risk assessment is an appropriate tool with innovation, it is not the first step in developing an innovation or dealing with an ethics question. Apparently more fine-tuning is required.

There are a number of theories about how people acquire their ethics, such as childhood socialization theories, life cycle theories, and generational theories (Glor, 2000b). A life cycle theory suggests that people's values are laid down when they are adolescents and young adults, but that their values continue to change somewhat throughout the life cycle—different things become valued as people partner, have children, establish careers and retire. Generational theory suggests each generation has a unique set of values that affect employees' sense of what is important in the workplace, their responses to ethics programs, and therefore how the employer can address the employee in terms of his/her values. A generational approach to ethics programs would have the potential for respecting employee autonomy more effectively than a program that attempts to impose one set of values and behavior on all employees, and could appeal to employees' values in serving the public and the minister (Glor, 2001e). The latter would appeal to employees' intrinsic motivation rather than assuming (as ethics codes do) that they are extrinsically motivated. It could also help to enhance innovation.

Organizational Ethics

While ethics programs are primarily about how things are done, organizational ethics are both about how things are done and what is done. As a consequence, they have a much broader impact.

The Ethics of Corporate and Governmental Behavior

The codes of conduct developed for the workplace address employee behavior but typically not employer behavior. Employee behavior usually affects only the immediate work environment, perhaps the client, and to a limited extent the public's perception of the employer. The employer's behavior consists of its attitude, policies and behaviors toward suppliers, employees, clients/customers, citizens and the public good. Employers have much more potential to affect the public's attitude toward government or the corporation than do individual employees. If the employer's behavior is not ethical, the perception of the groups affected by that behavior will decline, even if a service is delivered more efficiently or in a nicer manner. Deviation from this perception, if it happens, is likely to be short-term.

The Links Between Individual/Corporate Behavior and Society

It has long been known that people pay more attention to what is done than what is said. “Do what I say, not what I do” has been the response of those (especially parents) unable or unwilling to adhere to their own principles. Employees also notice what their employers do as well as what they say. This is important at two levels.

First, employees notice if they are being treated like children. As suggested in Table 2, codes tend to treat employees like children, albeit as children at different stages of development. The problem is, employees are not children, and do not like being treated that way.

Impacts on Employees

Second, most codes impose much more obligation on employees than on the employer. Yet employers do have obligations—to their employees, suppliers, customers, stakeholders, and society-at-large. Employees, suppliers, clients, stakeholders, and the public notice these attitudes and discrepancies. Overall, codes can thus contribute to cynicism and a sense of not being valued, and ultimately alienation, rather than contribute to adherence to the employer's code or ethical conduct. Codes typically do not contribute to a sense of empowerment.

People want to be empowered. For some, empowerment means power and control over others. For others, it means having the power to control their own lives. Living with empowerment after disempowerment is a learned skill. If everyone in the public service chain could feel (and be) empowered, programs and services could be more pleasant and more effectively delivered and received.

Consider some profiles of a disempowering and empowering approach. In a disempowering environment, the program does not work, recipients and the public are disappointed and disempowered. Politicians lose their constituencies. In an empowering environment, the program is delivered in empowering ways and empowers those involved to deal with the issue/problem. Noticeable improvement in the issue/problem occurs, recipients are happy and empowered, voters are impressed and reelect the politician(s) involved. Of course there is much water to paddle between the concept and the reality of empowerment, but the first step is to realize that empowerment is at the core of individual health, societal health and innovation.

The second step is to make empowerment a guiding principle of public administration and public policy. An important issue here is empowerment to do what? Are employees to be empowered to do their jobs effectively, to serve clients with a minimum of (only necessary) encumbrances, or are they to be empowered to serve the public and the public good? When I joined the Government of Canada, I took an oath of office in which I dedicated myself to service the public good. The Government of Canada's new code of ethics makes very clear that the public good is defined by ministers and that public servants serve ministers. Is this an important distinction? To me, it is.

The role of public servants is, of course, to recommend, not to decide. Decisions are taken by ministers. But what will public servants recommend to ministers? Will it only be what the government proposed in its political platform? Or will other options be explored?

Doing the Right Things—Policy

This is a second perspective on ethics, not how things are done, but the ethics of what is done. Most everyone can agree that customs officers, police constables, housing inspectors, and ministers of justice ought not to take bribes. It is another thing, as a friend of mine says, to call in loans to third world countries who adopt policies that are inconsistent with the foreign policy preferences of the lender. There is probably some form of consensus that corruption is wrong, but what about imperialism? Or inequality? Or inequity? Or disempowering practices?

The Consequences of Innovation for Society

According to Everett M. Rogers (1995), diffusion researchers and innovation champions (diffusion agents) have tended to ignore the consequences of innovation, and in particular how the socioeconomic benefits of innovation are distributed within a system. When equality has been studied, researchers often found that diffusion of innovations widens the gap between higher and lower status segments of a system. This is markedly true in Third World nations, creating the *inequality effect*.

Much diffusion research has occurred in the Third World. This research found that the classic diffusion of innovation model fit the dominant paradigm of development well. It had four steps: (1) economic growth through industrialization and urbanization, (2) capital-intensive, labor-saving technology, mostly transferred from industrialized nations, (3) centralized planning, chiefly by government economists and bankers, to speed up the process, (4) built on the belief that the causes of underdevelopment lie chiefly within the developing nation, not in their trade and other external relationships with industrialized countries.

This model has been revamped since the 1970s. Development is now generally defined as “a widely participatory process of social change in a society intended to bring about both social and material advancement (including greater equality, freedom, and other valued qualities) for the majority of people through their gaining greater control over their environment.” (Rogers, 1995: 127) Greater concern with equality of benefits of development after the 1970s emphasized the priority of villagers and the urban poor and, since the 1980s, of women. It was realized that the technologies being introduced were increasing the subordination of women. The new policies are less elite-oriented and more concerned with equalizing the benefits of innovation.

The way questions were asked in the past helped to enhance inequality. Previous research in third world nations asked such questions as: (1) how are technological innovations diffused in a social system? (2) what are the characteristics of innovators, early adopters and others? (3) what is the role of opinion leaders in the interpersonal networks through which new ideas diffuse? More appropriate questions were found (see box). Exploring these important issues moves innovation in the direction of overcoming the inequality effect.

Diffusion agents tend to work with those who are easy to convince (who are ready) and have the personal, social, and conceptual tools to use the innovation. This tends to be the better-off and better-educated. This pattern is especially marked in developing countries, and again tends to amplify inequality. Some research suggests that the diffusion agents can use innovation to reduce inequality if they introduce innovations and communication strategies appropriate to their clientele.

The Ethical Implications of Innovation

Although this is not acknowledged in the issues paper of The Society of Management Accountants of Canada, quoted above (Clarkson, Deck and Leblanc, 1997), the framework for codes that the authors outline is based on some of the oldest philosophies of ethics. An ethical system based on Thou Shalt Not (code of conduct) is much like that adopted by the Jews 3500 years ago. An ethical system based on character (code of practice) is what Plato and Aristotle developed. A system based on obligations (code of ethics) was promoted by Immanuel Kant. This brings us to the Enlightenment of the 18th century, but no further. The ethical systems proposed, debated and adopted during the last two hundred years are not employed by Clarkson *et. al.* to structure codes. Nothing is heard, for example, of utilitarianism, liberalism, Marxism, Christian socialism or humanism.

Utilitarianism as an ethical system judges activities by their impact on the well-being of the group, not that of the organization, and was summarized as “the greatest benefit for the greatest number.” This notion was developed during the early 1800s, as the industrial revolution took off in England, and democratic movements developed by the new middle class became strong. It should be remembered that James and John Stewart Mill were (enlightened) business people, though J. S. Mill eventually renounced utilitarianism. Marxism, during the last half of the

Questions to Ask About Innovations

- (1) What criteria guide the choice of innovations that are to be diffused? (a) the public welfare, (b) increased production of goods for export, (c) maintaining low prices for urban consumers, (d) increased profits
- (2) what influence does society's social structure have over individual innovation decisions?
- (3) Are the technological innovations being diffused appropriate, well-proven, and adequate for the stage of socioeconomic development of the community or nation?
- (4) What are the likely consequences of technological innovation in terms of (a) employment and unemployment, (b) migration of rural people to cities, and (c) more equitable distribution of individual incomes?
- (d) Will the innovation widen or narrow socioeconomic gaps?
- (e) Will it empower or disempower (i) politicians, (ii) the public service, (ii) suppliers, (iii) stakeholders, (iv) recipients, (v) citizens?

19th century, defined an inevitable clash between owners and workers—class conflict—that saw ethics as a by-product of interests. Marx thus would have predicted that capitalists would attempt to impose an ethics on employees that favored employers (much like the codes reviewed earlier). He would have supported an ethics that favored employees. During the 20th century, democratic and especially Fabian socialists and Christian socialists such as adherents to the Social Gospel movement in the USA, Britain and Canada sought to ameliorate the negative impacts of capitalism and to create a more socioeconomically equal society.

The dominant ideology of the last twenty years has been willing to accept greater socioeconomic inequality. Because innovation is one of an organization's and a society's main instruments for adaptation to the present and creation of the future, the ethics that guide society and therefore innovation will markedly influence the innovations adopted and the nature of the future.

Moreover, there is an inherent risk in innovation of creating greater inequality. Based on the study of thousands of innovations, Everett Rogers (1995) has concluded that innovation increases socioeconomic inequality. If innovators, corporations or governments, are not willing to and do not take steps to prevent greater inequality, this is what will happen. So, future organizations and societies will be more unequal than present ones. A perspective that considers only the good of the individual, the organization, here and now, and not the good of the individual, the group and society in the future, will assure a more miserable future for all who are not richer, and that will be most of us.

So, what can be done about it? Let me first admit some uncertainty. Rather than endorse Kant's categorical imperative, that human's have moral obligations or commands that are unconditionally and universally binding, let me instead state my own opinions: Put briefly, treat employees like adults and pay attention to the well-being of all the actors involved. Think about the implications for yourself, your stakeholders, society, people and living things in the world today. Think about the future. Don't jump too fast.

Surfacing Social Values

All healthy societies are ready to sacrifice the existential moment for their children's future and for children after these. The sense of the future is behind all good policies. Unless we have it, we can give nothing either wise or decent to the world. C. P. Snow. Quoted in Tugwell, 1973:vi.

Corporation and government statements are not value-neutral. The fall-back human position seems to be to look after yourself (and sometimes, also your

Shell Oil Company's Commitment

Royal Dutch/Shell is committed to:

- pursue the goal of no harm to people
- protect the environment
- use material and energy efficiently to provide our products and services
- develop energy resources, products and services consistent with these aims
- publicly report on our performance
- play a leading role in promoting best practice in our industries
- manage health, social and environmental (HSE) matters as any other critical business activity
- promote a culture in which all Shell employees share this commitment.

<http://www.countonshell.com/>

family). Without social structures to encourage consideration of others—philosophical, religious, fraternal, political, whatever—societies and individuals may turn to selfish, individualistic values.

While selfish values help individuals to move forward, and drive capitalism, they have not been found, despite Bernard Mandeville's assertion, to make a better society. Because of this, as capitalism developed, and with it the industrial economy, so also democratic government was demanded and won by the newly created capitalist classes. This initially meant votes for those with money (capitalists) and land (landowners). Eventually this pathway led to votes for almost everyone, but not without the leadership of reform movements. In Canada these movements sometimes became violent, a most uncanadian approach. From democratic government and social movements developed government's greater involvement in trying to reduce inequality. The predominant political philosophy of equality of the early capitalist era was utilitarianism, that of the twentieth century was social democracy. This was especially true in Canada and Europe, but not as much in the USA, which never developed a full welfare state. Based on these twentieth century ideals, perhaps some new questions could be added to the Rotary Club questions (see previous box).

During the last twenty years, as big business globalized, a backlash developed against the welfare state, followed by the implantation of right-wing governments with an emphasis on self-sufficiency and individualism, and a more aggressive, American-style capitalism. At the same time a sense has developed that more economic and management innovation is required to keep up in this environment, and more social innovation to deal with the consequences. Attention has been paid to influencing and controlling the ethics of employees, but not so much has addressed the ethics of corporate or government policy. One exception has been a tool developed for assessing the overall ethics of organizations.

Tools: Social Responsibility Reports and Social Audits

What an ethical improvement should be can be difficult to describe, but one version of it is Christian Bay's: we should seek to create a "healthy polity" (Bay, 1968 a, b). A healthy polity could be defined as one which reduces suffering and increases well-being for the population of a country (Doughty, 1997).

How can we assess our organization and our innovation for whether it is going to create less suffering and more well-being for all? First, the innovation could be assessed against the Rotary Club's individual principles. Second, the social questions could be asked "will it make my society and the world a better place to live in, now and in the future?" Third, as Nonaka and Takeuchi (1995) suggested some Japanese companies do, we could ask "how will my innovation affect my society and the world 50, 100 and 200 years from now? Fourth, we should ask "will this innovation decrease suffering and increase well-being in the short-term and in the long-term?"

"Business leaders should not only analyze their environments (general and immediate) but also find solutions to increase the quality of the environment and the welfare of society as a whole. This is one of business' most fundamental responsibilities." Bergeron, 1989: 97

Idealistic as this may sound, it can help shift the focus to the longer term.

Other tools are available. Some corporations, not so much governments, have begun to look at their social responsibilities. SRPs bring the social responsibility of corporations into focus. Pierre Bergeron reported that in 1977 eighty-nine per cent of Fortune 500 companies revealed their social programs. A few corporations have introduced social responsibility programs (SRP). Some examples of companies issuing social reports include Placer Dome, a gold mining company; the UK Cooperative Bank, The Body Shop, Shell, Amoco, and United Utilities. The Cooperative Bank and The Body Shop were established as values-based corporations. Placer Dome, Shell and Amoco are large multi-nationals and United Utilities is a British utility. All have had problematic public relations and have been challenged on the ethics of how they do business.

Only a few corporations are values-based, like The Body Shop,²⁴ with its policy of not using animals to test cosmetics. Nonetheless, whole sectors of the economy are values-based, such as the cooperatives, the churches, fraternal organizations, the aid non-government agencies, hospitals, schools, and government. Only recently have they begun to look at the way they do business. The social responsibility report (SRR) outlines an organization's activities related to its social responsibilities. Shell has begun to produce a social audit that addresses whether it is meeting its principles (see box). Sometimes a company's social audit is conducted by a third party in order to increase the credibility of the SRR.

The social audit assesses corporate behavior against values like creating a representative workforce, democracy, reducing demands on the environment, and treating their employees well. It thus brings together how things are done with what is done. The Cooperative Bank produces an annual report on social issues that, for example, addresses energy use by its staff and customers

The Cooperative Bank

In a recent Social Responsibility Report (SRR), the Cooperative Bank, a financial co-op, addressed a wide range of social issues, varying from traditional corporate giving, to sales-based corporate giving (a proportion of credit card sales), to considering the *greenness* of its corporate operations (e.g. trends in energy consumption by the company: they were going up). At a different level, it considered the secondary implications of the way it did business. This analysis addressed how far its employees drove to work, how much energy they consumed in doing so, how far its customers drove to do business with them, and how much energy they used in doing so. At a third level, the Bank appointed an independent social auditor (independent social accounting consultancy) to review their program and verify that what the social responsibility report stated was trustworthy and gave a balanced account. The auditor verified this, but also raised new issues. Source: 1999 Report, available on Internet at: <http://www.co-operativebank.co.uk/1999/index.html>, other reports by clicking on Ethics/Ecology. The bank's site is <http://www.co-operativebank.co.uk>

²⁴ Interestingly, the founder of the Body Shop has been ousted from her job, and the values focus of the company may be under review.

(see box). Shell's audit covers issues such as its own use of energy. These tools would seem applicable to government departments, but I am not aware of any governments applying them to themselves.

Nonetheless, a few governments are explicitly guiding their actions with values. The Danish government, for example, has produced a set of principles against which it will assess its decisions on biotechnology and is recommending them to other governments (see box). The Government of Canada has established a committee to advise on bioethics. In another area, it requires that departments do sustainable development reports every three years, although the policy does not require and the departments are not addressing the ethics of their activities as such, only their efforts to be more *green*, one specific value.

SRPs in corporations can be self-serving. Some companies with SRP programs have in fact suggested that these programs need to produce benefits for both the corporation and the altruistic causes (the CEO of Placer Dome suggested so at the IIPE in Ottawa in 2000). This attitude was also reflected in the 1997 Conference Board of Canada study tour of six British companies that had introduced SRPs.

Some other caveats about how socially responsible these efforts really are should be acknowledged. Shell is trying to rebuild its reputation, following its questionable practices in

Nigeria. Contrast this rearguard action with the forward-looking ethics of the Cooperative Bank, a cooperative built on principles of sharing and equity of participation. Coops are perhaps unique in that they share the equity of their corporation among its consumers. At the same time, the Bank has a financial interest in its customers doing online banking, from home or work rather than in expensive automated teller machines or banks. While there are environmental benefits in their doing so, there are also financial ones. Still, the Bank has gone beyond gross self-interest.

Whose Values?

Rather than taking a leadership role in serving a broad public interest and considering a full range of possible options, governments have tended to follow patterns in society and to adopt measures around which a clear consensus has already developed, or which elites and their funders support. Governments that do this are followers, not leaders;

conservatives, not reformers. Only in the face of undeniable social movements, changes in social

Danish Ethical Foundation for Genetic Engineering Choices

The idea behind the formulation of ethical guidelines is twofold – on one hand to identify reasonable and ethically *acceptable uses*, and on the other hand to set *limits* for the use of genetic engineering. If genetic engineering is to be accepted, it – like biotechnology in general – will have to be developed and used:

(1) to the benefit of human beings, society and living organisms, provided that ... (The full text is replicated at:

<http://www.em.dk/publikationer/html/english/biotik/index.htm>)

Major Drivers of Governments' Value Changes:

- Overwhelming social movements
- Changes of values within the population
- Political ideology
- Transformative technical changes

values or transformative changes in technology has government typically been prepared to move out of the dominant paradigm that says the role of government is to serve the most powerful interests in society.²⁵ These are, by definition, not the majority. Most of the nationalizations in Canada, for example, were conducted by Conservative governments, in order to help out an industry rather than to change power relationships.

Social Values. Strong social movements have sometimes been able to change power relationships. They led to change and innovation. Some examples include those for public education, women's vote and the progressive movement. Change also came in times of clear crisis such as World War I, which led to the "temporary" income tax; the Great Depression, which saw the introduction of public works; and World War II, which produced unemployment insurance during the war and a variety of universal social programs after the war. Social movements have been necessary to make these changes precisely because the changes have involved alterations in power relationships and because there was no mechanism internal to the organizations to facilitate change. The social movements have created a source of power that promoted transformational innovation. Because they are built on an authoritarian mode of governing, organizations have no mechanism, such as democracy in society-at-large, to facilitate change. Workplace democracy has only rarely been tried. Of course, some innovations have had transformational impacts without such shifts in power.

Transformative technological innovations such as the introduction of the railway and then the automobile, the conversion from steam to electricity as the main source of power around 1900, and communications innovations such as the introduction of the computer and the Internet, for example, have had huge impacts on private lives and on the world of work - what we do, how we do it, who does it and how many do it (Rifkin, 1995). Computers have the potential to have a fundamental impact, as well, because they allow communication to occur across managerial levels in the organization, across organizations, and across the world, without the intervention or permission of the employer's representative. Some organizations have sought to bring this horizontal activity under control, by denying employees access to their work computers to pursue personal interests; by requiring agreement to these and other terms on a regular, sometimes monthly, basis; and by requiring employees to reveal personal information about their activities outside employment, as part of yearly ethics checks. What such organizations fail to appreciate is the disempowering effect of such requirements (or perhaps the need to avoid disempowering approaches), and that innovation frequently grows out of the pursuit of personal interests. 3M Corporation explicitly allows employees to pursue personal interests. This means some

²⁵ I am struck by the similarity between how civil servants served the most powerful, the monarch, in the past, and continue to do so much of the time today, rather than serving democratic interests. Public service responsibility solely to the Executive reinforces this usurpation of power. Yet absolute monarchy only existed for a limited period of time, historically, and is not some kind of given. The remnants of that system remain with us, however.

employees spend all of their time doing so.²⁶

Changes in the Values of the Population. Population values do not change quickly, but they do change. I have argued, for example, that there are currently differences in generational beliefs in the USA and Canada, and that these variances have had an effect on what is considered ethical public behavior. Likewise, the contrasts make some kinds of approaches to enhancing ethics among public servants more likely to be effective than others. (Glor, 2001e)

Changes in Political Ideology create the biggest change in values. Ideological changes are typically related to economic and demographic changes as well as changes in beliefs. This was true in the 1970s and again in the 1980s.

This is not to say, however, that innovations must produce revolutionary results to be innovations. It is to recognize, rather, that innovation is imbedded in a political context and can be affected by, and can have impacts on power. Most innovations in government have in fact not affected power but have produced incremental changes that deliberately did not affect power. More innovations were not approved, others were not even conceived, especially the ones with impacts on power. Self-censorship is a very strong phenomenon in government. Government was sometimes proactive, oftentimes it introduced incremental innovations, but it did not for the most part change the fundamentals of how it functions as an organization, how we function in society and the positions of the powerful and of the disadvantaged, except perhaps for the worse, as Rogers (1995) has discovered. The role of changing power has been left to social activists and social movements, and has typically been resisted by government. Only changes in government, and political parties, have typically brought power changes to government.

Innovation is not usually a goal in itself. It is a response to a situation which has for some reason created dissatisfaction—because of an intolerable situation or because a better approach has been discovered. Innovation is also a tool, that offers a process for addressing those unsatisfactory situations and taking advantage of opportunities. But the difficulties involved in changing voluntarily, or even more so, accepting or imposing involuntary change, are many. Most important is to have a clear vision of the goal, the values and the kind of society to which the innovator wishes to contribute, to create and to serve. Changes are always imbedded in a set of values, and these should be explicitly acknowledged, described and agreed upon, in innovation. According to Nonaka and Takeuchi (1995), innovative Japanese companies take this approach. Only by making values the basis of innovation is there any chance the innovations will accomplish the goals set and contribute to improving society, as they should.

²⁶ Presentation by William Coyne, former President of 3M Canada and Senior Vice President of Research and Development at 3M to the Challenge of Innovation in Government Conference, February 11-12, 2002.

An Example: SchoolNet²⁷

SchoolNet was initiated by staff of Industry Canada, during the early 1990s. It eventually made computers available in every school room in Canada, linked the teachers and students of those classrooms to the Internet, and created international learning networks. Doug Hull, the manager responsible for SchoolNet, described it as “turning the school system on its head.”²⁸ Giving teachers and students direct access to information has indeed reduced the capacity of elected school boards, the administration and the principals of the school system to be gate-keepers of information. In turn, it has increased the potential for teachers and students to access more information and to network horizontally. The ethical implications of reducing the control and potentially disempowering elected officials and administrators appointed on the basis of merit were not explored. It was clear to the Industry Canada officials that something had to be done about the school system, and it was done. The positive potential and the ethics of empowering teachers and students, who worked in a conservative, highly-controlled bureaucracy was likewise not explored. The potential was there to do it, and it was done. Most everyone is delighted with the results. Not so the school librarians, who have lost book budgets and many jobs as a consequence.

The Public Good

Wherein lies the public good? In the previous example? In the broader sense?

I do not believe there is one answer to this question, nor one way to discover it. I do believe discovering it has some conditions. First of all, to be discovered, the public good must be sought. One of the ways in which our society has become more impoverished in the last fifty years is in the reduction in the numbers of citizens organizations and individuals who are questioning, studying and promoting this concept. When farmers stopped talking about federal social programs in CCF policy-development circles, when Women's Institute policies became laughable, it was because they had been replaced by political party power brokers and radio- and television-based experts. The latter often lacked the broader intent.

Second, the discovery of the public good develops out of in-depth conversation on a broad basis. This process both explores many options and develops support for them. Third, the public good does not rest in one solution. It rests rather in the willingness to try new solutions, to abandon them if they fail, and to adopt them if they help. Fourth, the public good is an approximation and changes over time. What is essential is the capacity, over time and space, through the way we learn and change, to make corrections. With all its faults, democracy creates the best environment for this capacity.

Fifth, the public good is both a local and a broad phenomenon. One cannot be improved at the expense of the other and still represent the common good.

²⁷ A copy of Doug Hull's presentation to the Innovation Salon is available in The Innovation Journal.

²⁸ In a presentation to the Innovation Salon on March 18, 2002. See www.innovation.cc

Conclusion

The potential for workplace ethics programs to reduce personal autonomy and to introduce greater management control of the workplace (especially in compliance-based programs), and thus their potential to damage employee health, have not been addressed in government or private industry programs. On the other hand, some programs, such as social responsibility programs (SRP), have the potential to increase autonomy, although they have not tended to be concerned with employee well-being.

It is often not easy to assess each of these factors in any precise way, but asking the right questions may help us to move in the right direction, and to introduce the right innovations in the right way. Without social objectives, control itself can become the objective.

There is a sense in which innovation is and can be created through design. Securing approval, planning, implementation and evaluation all require commitment and will. Specific strategies, skills and organizational capacities, including ethical capacities, can help this happen effectively.

Having said all of that, have you noticed how little innovation actually occurs—in government and outside? Why is that? Section III discusses the ways in which innovation occurs not because of will but because it is determined by its context.

Section III: Holistic Strategies for Innovators

Section II laid out some ways in which the innovation process can be broken down into its parts and then be dealt with by specialists. Section III continues the exploration that was begun in chapter 6 of a larger perspective on innovation and considers innovation's role in society and organizations as a whole. In particular, it looks at the patterns that organizations follow, and how innovation frequently adheres to those same patterns. Dimensions contributing to those patterns are addressed as individual motivation, the culture of the organization, and the human challenges of innovations. Some suggestions are offered for encouraging innovation as part of the whole organization.

Patterns of functioning, or *cultures*, have a conservative, retentive inclination. This is normally a good thing. They maintain the integrity of society, the organization and the family, despite changes in their environments. This capacity for adjustment, found in all living organisms, also allows organizations to continue to exist, and to perform their functions in society. Because of this consistency, and despite major challenges, many organizations survived the fundamental readjustments and downsizing of institutions faced by government, enterprises and non-profits in western society during the 1980s and 1990s. While the multiple changes were deliberate and planned, and in some cases were toxic not tonic, the responses were not mapped out beforehand by governments, public services or corporations. In part they were a response, in part they were driven by those with ideological agendas. In some senses, the new organizations and new enterprises that have arisen during this period, especially the computer-based industry, may be seen as filling a new niche abandoned—or at least made room for—by the shrinkage of other institutions. The *whole systems approach* recognizes patterns of functioning such as these. It also identifies organizational pathology when it sees it.

Section III develops a whole systems approach to innovation. It describes the way change occurs in its organizations and how this pattern seems to be repeated in its innovations. It demonstrates a method for analysing an organization and its people.

Using these diagnoses, it identifies which one of eight innovation patterns of functioning the organization is likely to follow. The innovation taxonomy is based on an assessment of and the combination of three types of relationships or patterns—the individuals' and the organizations' relationship to the innovation, and the challenge presented to the individuals of the organization by the innovation. The creative and implementation challenges of each pattern and their likely outcomes are then identified. This section attempts to identify the circumstances under which that rare innovation pattern—continuous innovation—arises and whether and how it can be maintained. At the same time it also acknowledges that continuous innovation is not necessarily an easy thing—either for organizations or people.

A whole systems approach throws some light on the ways in which innovation does not seem to be controllable. Have you noticed that despite the introduction of changes and innovations, things often end up being much the same as they were before? *Plus ca change, plus reste la meme chose*. Champions of innovation have recognized and bemoaned this fact. If an

A Whole Systems Approach:

- Recognizes patterns of functioning
- Can be studied through whole system patterns and chaos theory.

organization is thought of as a living organism, instead of a construct of human will, this phenomenon can be understood a bit better. Both an organism and an organization adjust to recreate the patterns that existed before the innovation was introduced. Hence public services ignore new initiatives. Thus governments recreate the rigid, authoritarian relationships that existed in bureaucracies in the new, supposedly empowered environments. Despite new structures, elected officials, senior bureaucrats, private sector chief executive officers and managers reassert their authority over separate agencies, and they function much like the mother agencies they replaced. Thus the Communist government of China acts much like, and has many of the same privileges as the authoritarian emperors and warlords who preceded it. Thus government functions well in central and northern Italy for a millennium, in the areas that had civically evolved guilds and city states. Government does not function well for the same thousand years in the southern area that had one of the most autocratic monarchies in Europe beginning in the twelfth century, and established the initial pattern (Putnam, 1993: 121ff). Despite the retention of patterns, societies and organizations do change.

At the organizational level, whole system patterns and chaos theory seem to be helpful in explaining what happens. Complexity analyses demonstrate that natural, dynamic systems do change over time and generate more complex forms of organization and process through variation, disorder, and instability. The theory uncovers a world permeated by conservative rhythms and cycles, modified by chaos and change. This pattern applies in both the natural sciences and the world of public management (Kiel, 1994: xi). The process is one in which disruptive events cause fluctuations. A break in symmetry occurs, and organizations “choose one of two paths, a branching called bifurcation...increasing complexity and better linkage with its environment or decreased complexity and less responsiveness to its environment” (Kiel, 1994: 37). Real transforming and qualitative shifts in organizations appear when discontinuous breaks with past methods, mind-sets, and strategies occur. Qualitative improvements in methods and strategies ensue in organizations when discontinuous, not incremental, changes take place. The most successful organizations engage in discontinuous and transforming change (Kiel, 1994: 43). Moreover, many of the qualities Warren Bennis, the leading scholar on leadership, found desirable in leaders are exactly the qualities inherent in nonlinear systems (Kiel, 1994: 174).

Section III considers whether and how an organization can think about and interact with its employees, community and society in such a way as to enhance adaptation and innovative behavior. This section also recognizes that an organization does not change its character or structure—its patterns of functioning—overnight. Only by understanding the nature of organizational patterns and the ways they reinforce each other do the members of organizations have any hope of taking control of their futures in organizations.

Chapter 7 explores the nature of individual, cultural and challenge patterns, and how they in turn form organizational and innovation patterns. It considers obstacles to innovation from a systemic perspective, namely as patterns of activity. By analyzing the way organizations and individuals relate to innovation, it identifies eight organizational innovation patterns.

Chapter 8 then demonstrates how to work with the innovation patterns. It identifies criteria for the eight innovation patterns, and provides an example of each one, in some detail. It also analyzes the patterns in terms of drivers of change, the relative importance of individuals and organizational culture, the relationship of innovation to power, the likely impact on the public,

A Gardener Innovator's Guide to Innovating in Organizations

and the durability of the innovation. Chapter 8 also explores the processes associated with each pattern. It concludes by showing ways to work with and better understand the patterns.

Chapter 9 provides a short, step-by-step description of how the gardener innovator can work with organizational patterns in creating innovation. It suggests that the patterns give the innovator a tool for thinking about the potential creativity, implementation environment, and outcome of innovations. The patterns also allow the innovation champion to have a sense of what will be hard and what will be easy in implementing innovation in each environment. As in a garden, the patterns being explored consist of living, constantly changing and adapting beings.

Chapter 10 characterizes overall the argument about innovation made in Section III.

Chapter 7: The Nature of Organizational Innovation Patterns: Change is a Time of Vulnerability

Introduction

This chapter links organizational patterns and innovation patterns. It then demonstrates that there are policy and innovation patterns in Canadian federal, provincial and municipal governments. This sets the stage for the argument made in chapter 8 that it is possible to map an organization's innovation patterns, and that these patterns determine or at least correlate with the problems faced in implementing an innovation and the outcomes that result from the innovation.

Organizational Innovation Patterns

According to Everett M. Rogers, the study of the dissemination of innovation started with the examination of innovations in France in 1903 and in England and Germany soon afterwards. In the USA innovation was studied in the 1920s in anthropology and in the 1930s through examination of the dissemination of hybrid corn. Rogers (1995) identified communication as a cardinal factor

in the dissemination of innovations. Beginning in the 1960s, American and Canadian sociologists and political scientists shifted from study of dissemination of individual innovations to study of the adopters, especially American and Canadian governments. They considered whether the circumstances or characteristics of the adopters determined whether they were initiators, early adopters, late adopters or laggards in their adoption behavior. Much of this comparative research on government traits was quantitative. Through it, the possibility was raised that innovation adoption did not follow a unique path with each event, but that it adhered to a characteristic form or pattern of behavior (Mohr, 1969; Walker, 1969; Light, 1978; Gray, 1973). The "S" curve pattern in the adoption of individual innovations was identified, where initially a few individuals, governments or companies adopted the innovation, then an accelerating number did, then smaller numbers did (Ryan and Gross, 1943).

The traits of early adopting governments were examined. Both the characteristics of governments and the nature of populations were identified as possible causal factors for this behavior. The behavior of governments with reputations for innovativeness—like Minnesota in the USA and Saskatchewan in Canada—were only partially explained in this way, however. Following considerable debate about the methods of study employed, Savage concluded that there was indeed a governmental trait or pattern of innovativeness (Savage, 1978).

A separate stream of study considered the patterns of innovation within organizations. Psychologists such as Abraham Maslow (1954), who developed the concept of the *self-actualizing* individual, and social psychologists like Albert Bandura (1997), who invented the idea of *self-efficacy*, related innovation to personal traits and motivation. According to Bandura, the personal trait of self-efficacy allowed individuals to remain in control, self-motivated, effective and innovative in most situations. Popular notions of self-motivation such as those of

Organizational Innovation Patterns

Innovators

Early adopters

Early majority

Late Majority

Laggards

Source: Rogers, 1995, chapter 7.

Norman Vincent Peal, Stephen Covey and John Bradshaw were based on similar approaches.

Frederick Herzberg (1968) distinguished between what he called hygiene and motivators. Lack of hygiene led to job dissatisfaction. It could be reduced through such interventions as reducing time spent at work, increased wages and fringe benefits, human relations and sensitivity training for managers, better and two-way communications, job participation and employee counselling. These factors dealt with the lower levels of human needs as defined by Maslow. Herzberg indicated that hygiene was not the opposite of motivators, which led to job satisfaction. Motivators were intrinsic to the job and related to job content. They could lead to achievement and psychological growth, and met the higher needs defined by Maslow. Herzberg's hygiene was very close to what others called extrinsic motivation, while motivation resembled intrinsic motivation.

At the same time, management science picked up on these ideas, accentuating individual leadership roles in changing the organizational structure, organizational culture, and individual employees' motivations so that change and innovation could be introduced and accommodated more easily in a presumably reluctant and unwilling organization, often a large bureaucracy. Here factors such as leadership and techniques creating irresistible forces for change were identified, almost always with the view that there was one best way to run any organization and to create innovation. This perspective also usually held that it was quite alright, in fact, usually necessary, to force changes on employees. This approach was often based on individual case studies and the drawing of lessons learned from them, as opposed to either quantitative or qualitative exploration of the phenomenon of innovation. Management studies typically recommended enhancing innovation in organizations through changes in leadership, structure, culture and motivation. Introducing change and innovation was seen to be a responsibility and prerogative of management, and the approaches exhibited a pro-innovation and reductionist bias. Change was seen to occur, for example, through use of specific structures such as teams.

During the 1960s, some sociologists and systems theorists of change, including Everett M. Rogers, began moving away from concentration on both organizational and individual traits and roles. Instead, they started to see change as a process. These efforts to explain change used organizing concepts, such as contextualism; population ecology models; organizational life cycles; power in organizations; political models of change; social action theories, the organization and situation as defined by individuals; and the

Change as a Process:

- Context
- Population ecology models
- Organizational life cycles
- Power in organizations
- Political models of change
- Social action theories
- Organization and situation as defined by individuals
- Use of metaphor

Innovations Occur Within Patterns

- Innovations not merely the product of innovation *decisions* that achieve unique, pre-determined outcomes.
- Patterns acknowledge and integrate the effects of individuals, collectivities (organizational culture), structures, and ideas at work in organizations.

use of metaphor, for example the organization as theater (Elkin, 1983; Wilson, 1992). These approaches were not entirely new. Engels had used political and social action models of change, individual perceptions were seen to play an important role by Dilthey, Weber and the German idealists from Kant onwards, metaphors were used by Herbert Spencer and fifty years later by Norton Long—who referred to local community politics as an *ecology of games*. The authors did not usually address innovation as a pattern, however, except to suggest innovation might occur in cycles.

Tant was one exception, in his perception of “the role of institutionalized political culture as inhibiting other than marginal change” (Tant, 1993: 7). Process and systems approaches emphasized the possibility that organizations are not static, with ongoing characteristics or states, but change all the time. This was not entirely new either—Bennis and Slater (1998), Boulding (1970) and Etzioni (1968) agreed. These ideas had at least the potential to describe organizational functioning in creating innovations as occurring within *patterns* rather than merely as the product of innovation *decisions* that achieved unique, pre-determined outcomes. Patterns acknowledge and integrate the effects of combinations of individuals, collectivities (organizational culture), structures, and ideas at work in organizations. The remainder of this chapter considers innovation patterns from two perspectives. It makes an effort to capture and describe the patterns followed by several Canadian governments as they innovated, and it goes on to suggest that both individuals and organizations follow patterns as they innovate.

The Innovation Patterns of Canadian Governments²⁹

Most Canadians have consistently looked to their governments to address key problems and issues of the nation, concerns such as creating and maintaining the nation, and improving working conditions, business environment, transportation and communication infrastructure, social and health problems and the environment.

Especially since World War II they have also looked to government to manage the economy and support the disadvantaged. In recent years, however, as the growth rate of government revenues declined, and the dominant ideology changed from liberalism to neoliberalism, the role of government has been rethought, with an emphasis on eliminating budget deficits, reducing debt and taxes, and lessening the role of the state. One paradigm within which innovation occurred was replaced by another. Always the role of the state was bracketed by a dominant paradigm.

The following analysis of innovation in government is done separately for policy and

Government Innovation Patterns

- Federal Government-Innovation champion and facilitator. Not always a policy innovator itself, sometimes an administrative and process innovator
- Saskatchewan-Promoter of equality and rights
- Ontario-promoter of interest groups and rights, privatization and introduction of competition into government
- Alberta-promoter of competition in government services
- Large cities-promoters of growth-related innovations, community services

²⁹ This section is largely based on my “Public Sector Innovation in Canada”.

administrative innovation because the patterns of their development have been somewhat different. The leaders in policy and administrative innovation are typically different, for example - elected officials for the first, appointed ones for the second. Although the distinction is not always easy to make, in this paper policy refers to what is done by government - policies and programs which it delivers. Administration is concerned with how it is done - the management, processes and infrastructure (human resources, information systems, administration, assets management and finance) that support policy. This analysis also suggests that the governments which were innovators (first implementers) may have been different for policy and management innovations.

Policy Innovation Patterns

As with many social phenomena, the literature on policy innovation has reviewed and drawn conclusions from a limited number of cases of innovation. Mohr (1969) studied ninety-three policy innovations, Gray (1973) twelve, and Walker (1969) eighty-eight, mostly American, innovations. In Canada, Dale Poel (1976) studied 25 policy innovations introduced by provinces from the 1940s to the 1970s and Glor (1997b) identified 126 innovations that were introduced first primarily in Saskatchewan, but were also sometimes introduced in the rest of Canada from 1971-82 (Glor, 1997b).

Federal Government Policy Innovation

The federal government should be Canada's primary public sector policy innovator. It becomes aware of public sector innovations abroad in the course of its normal business much more than other governments and political parties, which often must identify the need, assign additional resources and create specific mechanisms such as task forces in order to identify these initiatives. Because of its size, the federal government has also had more resources with which to innovate: it has a budget equal in value to that of all the provinces combined. While some federal officials argue the budget is largely "outside its control," this is true for provincial and municipal governments as well, which likewise earmark large portions of their budgets for third parties. Moreover, the federal government did research and funded others to do much more research than other governments. To some extent this was the equivalent of research and development (R&D) in the private sector. The federal government thus had high potential to become an innovator, because of its communication systems, its size, and its large research and development budget.

The federal government has indeed been the first government in Canada to introduce a number of new policies. While this is

Federal Policy Innovations

- single department to serve the north;
- open, honest environmental public consultation process, with financial assistance made available to interest groups; e
- comprehensive environmental assessment of a development project (MacKenzie Valley Pipeline);
- human rights code;
- reduce drug costs through bulk buying;
- science council;
- short-term developmental funding for health and social preventive community-based projects.

admittedly not a complete the list, it is a rather short list for a period of 40 years, from 1960 to 2000, especially for the largest government in Canada. It compares to 126 policy innovations over 11 years, 1971-82, in the Saskatchewan Government, for example. The federal government was not the most active policy innovator among Canadian governments, as should have been expected according to these criteria, which are emphasized in the innovation literature. While the reasons are at least partially explained by the barriers described in the Introduction, including politics, ideology, the government's perception of its role, and the provinces' perception of the federal role, it is also important to recognize that this is the pattern of innovation in the federal government. The federal government could be considered one of a dissemination facilitator or innovation champion, more than an innovator.

Provincial Policy Innovation

Provinces and their governments are very different one from another, and their policy innovativeness also varies. A comparative study of provincial innovation from the 1940s to 1974 by Dale Poel (1976), found two innovation streams in the provinces, grouped along ideological lines. On the interest-group liberal (rights-oriented) dimension, Ontario was the most innovative province, with Saskatchewan second. On the socialist (equality-oriented) dimension, Saskatchewan was the most innovative province. Overall Saskatchewan was found to be considerably more innovative than Ontario.

More recently, the right-wing governments of Alberta, Ontario and British Columbia, the richest provinces (and to some extent the federal government as well) have been aggressive in adopting the New Public Management but have not introduced many policy innovations. The main strategy or pattern of policy innovation has been downsizing, privatization and introduction of competition into public programs.

While some provinces were consistently initiators and early adopters, others such as Quebec and Manitoba were middle adopters. A third group was consistently laggard, especially Nova Scotia and Newfoundland. These provinces were early adopters, middle adopters, and laggards, respectively. Savage (1978), likewise, found patterns of adoption of innovation among the USA states (see chapter 2).

Provincial Policy Innovations

- Many provinces privatized crown corporations. Manitoba and Ontario, for example, privatized their public hydro utilities,
- Saskatchewan privatized its potash company,
- Ontario introduced tax write-offs for private schools
- Alberta introduced public funding for charter schools, private schools with public charters.

Municipal Policy Innovation

Municipal policy innovations have taken a somewhat different turn from those of the federal and provincial governments. Canada is a country with three large municipalities (Toronto, Montreal and Vancouver), a few medium-sized municipalities (Calgary, Edmonton, Winnipeg, Ottawa, Hamilton, followed by Halifax and Quebec), and a large number of small and tiny municipalities. Because they are legally controlled by the provinces, municipalities have a

limited jurisdiction, which varies by province, but can include local infrastructure, schools, public housing, social welfare, public health services, transportation and leisure time activities, most of which are cost-shared with the province.

The large municipalities are the primary receptors of new population in Canada, through internal migration, immigration and a limited amount of natural increase. As a consequence, growth, the absorption of new immigrants, and dealing with developers have been major issues.³⁰ Contentious policy differences have tended to centre around control of growth and provision of services, and have not often centred on political party positions. Most municipalities, in fact, do not have political parties.

Growth-related innovations have focussed on developing mass transit systems,

**An Organic Solution:
The Rhur Valley**

One area of the Rhur Valley dealt with its abandoned factories and polluted landscape in a new way. Instead of tearing down the old factories and carting off the soil, the buildings were renovated to accommodate high technology, especially media and arts industries. A high tech park was thereby created. The land, that had already produced a new, natural growth through the cinders, was allowed to continue to grow. Pathways, playgrounds and benches were added, and twenty years later it is a natural park, actively used by local people.

controlling growth through zoning, buying land,³¹ and developing new housing

and services for low income people, often with federal loan guarantees or funding. Due to municipal and provincial urging, during the 1970s the federal government developed several new programs to support and build housing for the disadvantaged, including social housing, cooperative housing, and self-built housing. Since the 1980s a feature of European urban innovation has been efforts to adjust to the relocation of industries to Asia (Landry, 2000). In Canada, the dislocation has not been as bad, and has at worst led to stagnant growth in cities such as Montreal and Winnipeg (Leo and Brown, 2000) (See Winnipeg box). This has not necessarily meant they were not innovators, however, but rather

**Innovation in Slow Growth:
Winnipeg**

Because it did not face the pressures of high growth rates, Winnipeg was able to plan and carry out its plans. Its bus system is admired for its size. Its arts community is vibrant. Original music is commissioned, drama is active, an annual folk festival is supported.

³⁰ Clark (1994) argues that municipalities perform three kinds of functions, developmental where the municipality seeks to enhance the property value of the locality, redistributive where services nominally aid the disadvantaged and allocational where they provide basic municipal services like policing.

³¹ During the 1970s, the Province of Saskatchewan bought up land around its major cities, Regina in particular, to prevent escalation of housing prices. To this day Regina has the lowest housing costs in the country for a city of its size.

innovators within a slow growth context (Leo and Brown, 2000). The large cities were acknowledged by IPAC as the most consistently innovative (Glor, 1998a).

A number of cities have deliberately chosen to create new patterns following periods of decline. Sometimes this has been initiated by introducing a new mark (see Helsinki box). Other times planners innovated by not changing the environment in a major way (see Rhur Valley box) but by letting the innovation grow organically out of the outcomes of previous initiatives. Yet other cities, such as Huddersfield, engaged in strenuous city-building.

Administrative Innovation Patterns

Some studies emphasized administrative innovations. Yin et. al. (1977) identified 140

Innovation Through a New Mark: Helsinki

The City of Helsinki, one of the darkest cities in the world during the winter, branded itself as the city of light.

American information innovations while Gow (1994) examined 17 Canadian government management innovations, Borins (1994) reviewed 291 innovations from the Institute of Public Administration of Canada Award for Innovative Management³² and I found 34 in Saskatchewan, including one overlap with Gow (see notes to Glor, 2000, Chapter 9, Table 1).

Huddersfield, England

Huddersfield is a small Midlands town near Manchester. It grew up during the industrial as a mill town, and continued mainly in that industry for a hundred years. During the 1980s it was devastated as Margaret Thatcher opened markets and its industries declined sharply. As part of a European Union initiative, it was given a Creative Cities grant in 1997 to work on revitalization. An old church was turned into a live theatre and convention hall, the downtown was covered with bright, modern walkways. While old landmarks were retained, the face of the city was changed to a modern one. A new soccer stadium was built, with private sector money. Numerous social initiatives were undertaken. Of almost 30 municipalities funded by the EU, Huddersfield was recognized as the one that did the most with its initiative.

The Current Face of Administrative Innovation in Canada

In the face of a major reduction in resources to bring government expenditures into line with revenues which had not been adequate to match expenditures for 25 years, governments of the late 1990s faced a dilemma trying to maintain services to individuals, groups and the public. Revenues had flattened because of corporate downsizing, declining resource industries, a slowed economy, increased unemployment, reductions in corporate income taxes and introduction of new tax-based programs. Increases in individual taxes had not made up the difference, resistance to further tax increases had developed in the face of declining real personal income over 10 years, and some governments were reducing income taxes while increasing fees for government services. Economic stimulation through increased spending and debt was no longer an acceptable

³² Diffusions as well as early inventions and adoptions were accepted.

tool of government, both because of its cost and political opposition. As governments brought deficits under control, or sometimes before, they began cutting income taxes. The focus of governments now is on increasing efficiency and controlling expenditures, without increasing taxes. This new pattern has reduced the magnitude and power of government.

The Fiscal Austerity and Urban Innovation Project, a study of local officials in 1000 U.S. municipalities with populations over 25,000 and in 38 other countries, identified the range of approaches to restraint used by municipalities (Clark, 1994). There was a huge amount of overlap between these cities' strategies and those of the Government of Canada (Glor, 1998a). Privatization was notably missing from this list, perhaps because it has not yet been demonstrated to be an effective cost-saving mechanism (Gow, 1997; Greenwood and Wilson, 1994; Cigler, 1990; Greene, 1994).

Federal Government Administrative Innovations

Following twenty years of constraint and nearly ten years of restraint, in 1992-3, the Government of Canada's expenditures still exceeded its revenues by 33% overall (Martin, 1994). While reducing this deficit and its concurrent debt, the government needed to continue to meet at least some of the expectations of the people, businesses and other groups of the country. The message being received by governments from Canadians was and continues to be: "We want

you to continue to do what you do, but we want it to cost less."³³ The changes governments have introduced to accomplish this task have been primarily in the management/administrative domain.

The main strategy employed during the 1990s was not to redesign policies and programs, that is to innovate. Instead, it was to reduce - to cut subsidies and grants to third parties, including other governments, and budgets to government departments, to introduce and increase user fees, to privatize and to create partnerships to maintain functions which third parties considered important enough to finance, at least in part. This created government competition for third party,

1990s Federal Government Administrative Innovations:

- TBS shift from regulatory and control to management board role
- Industry self-regulation
- Introduction of shared administrative services
- Single window entry for business
- Mechanization of citizen interactions with government
- A paper burden reduction exercise.

³³ Frank Graves, President of EKOS Research Associates Ltd., speaking at the 1997 APEX Symposium, outlined this consistent finding in their polls.

often charitable, funds and in turn contributed to a crisis in the non-profit sector.

Governments reduced the magnitude of their contribution to programs, cutting programs once considered crucial to Canada's national well-being, such as education, health, welfare, and equalization programs. Several have realigned their services, the most striking being Alberta, Ontario with its *Common Sense Revolution* and the federal government with *Program Review 1,2 and 3*.

One significant shift in the federal government has been from a strategy of maximization to one of optimization, an approach that has been used extensively in the private sector (Glor, 1994/95). This methodology is reflected, for example, in its move to industry self-regulation through quality programs and risk-based auditing and control (fish inspection). Other federal innovations have included introduction of shared services among federal departments (Halifax, Place de la Chaudière in Ottawa). It introduced single window entry to federal government services to industry (Canada Business Service Centres), a non-technologically based innovation of the Saskatchewan government in 1980; federal and provincial employment, welfare and student aid programs (Canada and Alberta); and is developing single window entry to all government programs. The Department of Fisheries and Oceans did more with less: it retired ships, double-crewed some ships and transferred ships among regions, leading to a 10% increase in sea days, a 24% increase in efficiency, and a \$1 million reduction in annual operating costs (IPAC, 1993). Improved service through greater use of computers and the Internet have been emphasized in Industry Canada, Natural Resources Canada and Health Canada. A paper burden reduction initiative has led to redesign of the Record of Employment, cutting the number of forms from six to two, and reducing employers' costs by \$100 million a year. The first paperless court was introduced in Canada in the federal Competition Tribunal (internationally, a paperless court had previously been introduced in the Netherlands).

While government functioned in surplus from the late 1990s to the present, the emphasis on cutting the costs of infrastructure continued, and was reinforced by ongoing budget cuts for operations and under-funding of new operations such as new programs and new departments.

Provincial Administrative Innovation

**A Paperless Court:
The Competition Tribunal**
Based on a one-year pilot project, the Registry of the federal Competition Tribunal has completely automated the receipt, distribution, management and retention of court documents. An incremental approach, using three existing software, was chosen, that allowed earlier implementation. Viewing of documents during the hearing is electronic, uploading to the Tribunal's web site is easy. Costs are much lower. Interest has been shown by other courts and international organizations. The Canadian International Trade Tribunal has already begun implementation. This court was preceded by a paperless court in the Netherlands.
<http://www.ct-tc.gc.ca/>

Provinces adopted some of the same innovations (e.g. Manitoba was early with alternate service delivery), and also introduced new approaches. New Brunswick revamped its conventional training model for literacy programs to introduce a community-based, partnership-focussed, and community-driven system. The costs were shared one third by 400 private sector partners, 45% by the province (no increase in funding) and the rest from other sources. Five hundred jobs lasting up to 40 weeks were created, 400 volunteers were involved, programs were set up in 111 communities, 500 programs were delivered in 10,000 learning opportunities, drop-out rates declined from 50% to 7% and 77% of tests were successfully completed. The delivery cost declined to \$1.39 per student hour, one fifth the historic cost, while the new program enabled a thirteen-fold increase in training opportunities. (IPAC, 1995) There were also costs. Public servants and teachers lost their jobs, to be replaced by para-professionals.

Manitoba: First Service Agency

The Manitoba Fleet Vehicles Agency provides fleet management services. In 1992 it became a Special Operating Agency. An SOA is an operational unit within a department that is given more managerial autonomy in return for greater accountability for results. Operating more like a business, competing with private sector companies, the MFVA repaid its debt to the Department of Finance, made a profit by 1997, and provides fleet services at a rate about 5% below those of the private sector. It has expanded to serve other levels of government.

Source: Kernaghan, Marson, Borins, 2000: 26-28

The Province of British Columbia introduced the first on-line personal property registration system in North America in 1990 (IPAC, 1993). Ontario increased productivity in its Office of the Registrar General when this office was transferred to the north: it engaged 60% of its work force from target groups, increased productivity 55% and brought per unit salary costs back down to pre-relocation levels through increased use of technology (IPAC, 1994). The Alberta Workers' Compensation Board, facing major increases in costs, shifted from using multi-disciplinary teams focussed on body part-specific injuries (e.g. back, lower extremity) to treatment teams organized by occupational categories and allocated by trend data. They used real and simulated work activities at the onset of, and throughout treatment to create "work hardening" (IPAC, 1993).

Ontario privatized its land registration information systems in 1991, to create Teranet Land Information Services Inc., a partnership among Ontario, Canada and a consortium of private sector companies (IPAC, 1997a). In partnership with the private sector, Ontario piloted in 1993 then fully introduced in 1996 fifty-eight 24-hour *ServiceOntario* Self-Service Kiosks in shopping malls. These provide motor vehicle stickers, vehicle record searches, address changes for both the ministries of health and transportation, payments for court and parking fees and other services. The kiosks feature product (e.g. licence plate) and receipt dispensing with credit card payment (IPAC, 1997b). Ontario also introduced a paper burden reduction exercise for the business community, creating a single-window client-oriented transaction process through its Clearing the Path project.(IPAC, 1996).

Some provinces have placed an emphasis on social responsibility. In 2000, Saskatchewan Power, Saskatchewan's power utility, was the first electrical utility in Canada, and the first major business headquartered in Saskatchewan, to achieve corporate-wide ISO 14001

registration. The ISO 14,000 series is a best-practice system for environmental management. The federal Budget 2000 announced that it would purchase energy from emerging renewable sources in Saskatchewan (see box) and Prince Edward Island.

Municipal Administrative Innovation

Municipal governments have faced similar problems to those of the federal and provincial governments, *viz.* greater demands for service at a time of both lower revenue growth rates and reduced transfers from provincial and federal governments. Because municipalities are not legally allowed to run operating deficits, they have been forced to come to grips with scarce resources very quickly. Both municipal and provincial governments generally balanced their budgets faster than the federal government.

The approaches used by municipalities in Canada to deal with restraint have been varied. The City of Charlottetown, for example, resolved a long-standing dispute between the City and its police force over implementation of 12 hour shift schedules. Through facilitation by an expert with unique problem solving skills, they developed a solution which met the needs of the police officers for an improved life style and at the same time avoided a projected 9.5% increase in the operational budget of the Police Department. The solution reduced the cost of overtime by 50% and the overall Police Department budget by 4% (IPAC, 1993). The City of Toronto introduced the Bridges Program to facilitate the movement of women employees into non-traditional occupations, those where the work force was less than 30% women. It combined classroom sessions, shop training and a three week work placement (IPAC, 1991). Saint-Augustin-de-Desmaures, a suburb of Quebec City, was the first city world-wide to obtain its high level of certification under the ISO 9001 quality standards (IPAC, 1996). The City of Vancouver created integrated service teams that resolved community issues like "problem houses" with brawls, fires and hassling of children. Teams drew their members from City departments, schools and health services. Problems were effectively dealt with, communities became safer and more pleasant, yet costs were absorbed by existing services (IPAC, 1997).

The Nature of Government Innovation

The most comprehensive picture of administrative innovation in Canada is that provided by the IPAC Award for Innovative Management. IPAC received 740 nominations for its Award over

Saskatchewan Renewable Energy

A partnership among the Government of Canada, Saskatchewan, Suncor Corporation and Enbridge Corporation is leading to the building of seventeen wind turbines in Saskatchewan. Canada will purchase the energy for its federal buildings. The building and management of the turbines is being contracted out.

<http://www.gov.sk.ca/newsrel/2001/04/18-260.html>

Accès Montreal

Montreal improved access to services by opening 14 Accès Montreal offices in communities across the city, in order to save citizens repeated journeys, act as a clearing house for information on services and activities, and allow people to consult documents and make requests of municipal departments (IPAC, 1990).

eight years, identifying 30 finalists and 24 medalists, in eight management categories. Among recognized innovators (governments reaching the finals and winning medals), the most innovative governments were Ontario, B.C. and Canada. Among those which won medals, that is, "significant innovators", the most innovative government was Ontario, followed by B.C., and then Quebec, Alberta, Canada and (mostly large) municipalities with the same number of awards. Among these, however, Alberta and Canada never won a gold medal until 1998. Since then they have both won gold medals. These governments have been recognized by their peers as management innovators during the early and mid 1990s, in the areas examined (Table 1 lists them).

Administrative innovation is clearly occurring in federal, provincial and municipal governments. The innovations are mainly adoptions of the innovations of other governments or purpose-made solutions to specific problems. None of the Canadian administrative innovations seems, however, to have been recognized internationally as an important new way of doing the business of government. Overall the excellent reputation of Canada's public administration continues to grow, however, as represented by comments made by officials of the IMF and World Bank, and the requests for advisors, orientation and training from other countries. Notable in these

Invention of a New Food

The Dysphagia Program and Innovative Nutritional Treatment Project Team of the last Government of Canada veteran's hospital, St. Anne de Bellevue Hospital, invented a food for those who could not swallow. Professionals—the dieticians, nutritionists and physicians—did the research and development, in a bottom-up manner, vis-a-vis the hospital administration. Production of the new food is now in the process of being privatized through an Employee Takeover.

1990s awards is the absence of a focus on policy and program innovation. While innovation did occur—for example, a new food for those who could not swallow (see box)—this was not the locus. Rather, the spotlight was on streamlining and cost reduction.

These Canadian government innovation patterns have been summarized in Table 3. On the policy front, the federal government has tended to be a middle adopter of innovations, and a facilitator of dissemination among the provinces. The provinces have varied in their adoption of innovations, as have the municipalities.

Table 3: Canadian Government Innovation Patterns

Type of Innovation	Federal Government	Provincial Governments	Municipal Governments
Policy	Middle adopter Dissemination facilitator	Initiators/early adopters Middle adopters Laggards	Large municipalities early adopters Small municipalities laggards

Administration	Early adopter	Initiators/early adopters Middle adopters Laggards	Early adopters Middle adopters Laggards
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In the area of administrative innovations, the federal government has tended to be an early adopter, the provinces middle adopters, and the municipalities have varied in their patterns.

International Origins of Current Administrative Innovation Focus

The current focus of government innovation in most western countries originated with the confluence of continuous fiscal deficits in most western countries, beginning with the election of Margaret Thatcher in Great Britain in 1979. This was followed by the election of Ronald Reagan in the USA in 1980, the Labour Party in New Zealand in 1984 and the Progressive Conservatives in Canada in 1984, by which

International Origins of Innovation Since 1980:

- Margaret Thatcher, UK-executive agencies, citizen's rights as consumers
- Ronald Reagan, USA-decentralization
- Labour Party, New Zealand-transformative fiscal reductions
- Al Gore, USA-Reinventing government

time it was apparent that the predominant ideology in western countries had shifted from liberal to neoliberal. Many of the current directions of government were innovations developed and initiated as ways to reduce the role and influence of government and deal with economic crunch during the early and mid 1980s. These included major reductions in government subsidies and services including health care; hiving off the majority of government agencies into semi-autonomous executive agencies; privatization of crown corporations, utilities, and other government functions; increased user fees; and introduction of new accountability regimes through management contracts for ministers, deputies and agency heads. Introducing them for the first time anywhere, Britain spun off about 70% of its government into executive agencies, increased government accountability by introducing health goals and created a Citizen's Charter, a service commitment to citizens as clients.

Canada and other OECD countries adopted many of these British innovations (PUMA, 1990). Canada calls its executive agencies special operating agencies, service agencies or alternate service delivery and its Citizen's Charter a Declaration of Quality Service. It has not yet adopted health goals, largely because of the difficulties in creating accountability with thirteen federal and provincial governments responsible for health care, and municipal governments and non-government organizations delivering much of the service. Nonetheless, the federal and provincial governments have issued two joint health reports and are considering creating a national health council. Administrative strategies for dealing with restraint used by federal, provincial and municipal governments have usually been developed first elsewhere. Canadian governments have been adopters of administrative innovations but more rarely innovators.

The Role of Innovation in Government and the Role of Opportunism in Innovation

Public services have been organized as bureaucracies in order to support governments and implement initiatives, but not typically with a mandate to innovate. For the most part, while policy was developed by the cabinet ministers and senior public servants, the civil service implemented it. Today public services are being asked to take on novel roles, reflecting new values like service to the client as opposed to service to the public, shrinkage, and innovation in support of these objectives. Little discussion focused on whether these were the right objectives, or how governments had come to be in a position where these objectives were *required*. While the emphasis was policy and growth from the 1940s through the 1970s, today the focus is administration, management, efficiency, and reduction of the size and role of the public sector.

This section has outlined Canadian governments' relationships to innovation over the last 50 years and explored barriers to it. For governments the most important issue is how to maintain order and control while innovating when they want to do so. Because government is primarily about power, which is usually consistently maintained in relatively stable environments, elected and appointed officials have focussed on maintaining stability, and have introduced changes by exception. They have not recognized the need to be consistent innovators, and so have not organized, as some private corporations have, to innovate. Because of this lack of recognition of the ongoing need for and the value of innovation, and because government has many other competing objectives, numerous barriers stand in the way of innovation in government. These impediments vary somewhat by level of government.

Novel Roles for Public Servants

- Service to clients and customers, not citizens
- Shrinking government services rather than expanding them
- Innovation
- An emphasis on administration, management and efficiency, not policy

The Role of Opportunity in Innovation

The changes in dominant ideology created opportunity for introduction of a range of administrative innovations during the 1980s and 1990s. Government costs were reduced in most western societies; for example, Britain reduced its government from 41.8 to 40.8% of GDP from 1990 to 1999 (est.), New Zealand from 48.8 to 41.5, Canada from 46.7 to 41.8% (Glor, 2001d). The opportunity to do this through innovation was seen and taken up.

Opportunity, and the capacity to act on opportunity, is a more important element than might be imagined. The governments of Britain in 1979 and New Zealand in 1984, for example, were facing the consequences of declining economies, deficit and debt, brought on by dislocating competition from Japan and low-wage Asian economies, the shifting of world-based jobs to these countries, the oil crises of the 1970s, and a race to the bottom in reducing business taxes. They both used these challenges as a reason and an excuse to introduce fundamental changes to policies and administration.

The Relationship Between Politicians and Public Servants. The federal Liberals when they came into power in 1993 also came in with a detailed platform addressing two broad issues. The first was the need for balanced policies for jobs and growth, and included an economic framework, investing in people, an innovative economy, and sustainable development. The

second was the fabric of Canadian life, and included strengthening our society, governing with integrity, aboriginal peoples, and an independent foreign policy.

A good and an active relationship between civil servants and politicians offers the opportunity for innovation. In many governments, that relationship tends to occur only at the highest levels of the public service and the government.³⁴ The remainder of the civil service and the government have no personal contact with the innovators, but is expected to support this high-level innovation.

Can the gardener innovator, down in the bowels of the civil service or government, nonetheless become an active innovator? In preparation for offering a set of tools for doing so, the next chapter describes the ways in which organizations follow patterns internally. It analyzes what those patterns are, and arms the gardener innovator with an understanding that could allow her to innovate in any context.

Conclusion

Since the 1980s government innovations have initially emphasized doing more for less (greater efficiency), and more recently, doing less for less (reductions in costs and programs). Prior to the 1980s, the priority for innovations was policy, finding new and better ways to address key issues, but since then the emphasis has been on streamlining and integrating government processes and administration, more efficient and shared delivery of existing services, and reduction of the size and role of government. The introduction of streamlined approaches is a means for elected and appointed public servants to improve the quality and effectiveness of programs and assume some control rather than being buffeted by changes, reduced resources and difficult, seemingly insurmountable problems. It is not a means for addressing new and emerging problems.

In Canada, as in the United States, declining resources and increased tax pressure may also have produced a change in the values reflected in government. The priority has shifted from equity, redistribution of income and sharing of wealth to self-sufficiency, growth of capitalism and individualist values. As this shift has occurred, government interest has shifted from policy innovations to administrative and process innovations that improve efficiency and reduce resource use. Eventually, all governments have cut programs in order to balance budgets.

Based on the review of a large number of cases of innovation, and the traits of innovating organizations, this chapter has suggested that societies, innovators and innovations follow patterns. Of course, patterns are easier to observe after the fact than beforehand. Is it possible to look at innovation patterns in systematic ways that can help the innovator be more effective in

³⁴ An exception to this pattern was the government of Saskatchewan of the 1970s, where the Cabinet held the civil service in unusual regard, and interaction occurred among ministers and low-level civil servants. Unlike the federal government of Canada, for example, the budget analyst of the Department of Finance appeared at the Treasury Board cabinet committee to make his case. The other officials present were the senior analyst, (sometimes) the deputy minister of Finance, and the deputy minister of the department affected by the decision. In the federal government only the most senior officials appear.

accomplishing his/her goals? Chapter 8 offers a means of analysing individual and work unit-level patterns as a tool for assisting those attempting to innovate.

Chapter 8: Mapping Innovation Patterns

Introduction

As shown in the last chapter, it is possible to observe the patterns that organizations follow, and to identify some of the functions that these patterns serve—such as attempting to solve the fundamental economic problems of being a hinterland (Saskatchewan) or maintaining the integrity of the nation (Government of Canada). Observing that there are patterns does not really help the innovator explain very much by itself, however. Chapter 8 considers individual and organizational dynamics and structures that make up and create the framework for innovation. It suggests that it is possible to perceive the major components as individual motivation, organizational culture, and the challenge presented by the innovation. From these three factors the patterns that organizations follow are identified. These innovation patterns are named, characterized, and an example is given of each one. Next the characteristics of the patterns are analyzed, and their patterns of creativity, implementation environment, and outcome are defined. While the patterns governments follow will change, knowing the pattern a government is functioning within now can help the gardener innovator understand where the biggest barriers will lay and therefore where the innovator must concentrate efforts. Next, an attempt by a participant observer to identify the patterns in his organization is described. Finally, a methodology for doing a systems analysis of the patterns is outlined, that suggests why the patterns push in the directions they do.

Criteria for extrinsic motivation:

Perry *et. al.*'s (1993) four managerial motivations:

- productivity (efficiency),
- service-enhancement,
- organizational control,
- risk avoidance,
- influenced by individual, job, work environment, and external environments (Perry and Porter, 1982),
- Cofer's (1996) arbitrary rewards and goals.

Inter-relating Individual and Organizational Innovation Patterns³⁵

To understand how people and work units react to innovation requires an understanding of the relationship between the individual and the organization. Others have recognized the value of interrelating the individual and the collectivity: In 1990, Perry and Wise issued a challenge, to develop a “model that operationalizes the linkages between individual values, organizational environment and task structure, and outcome.” (Perry and Wise, 1990: 372) This chapter works on a similar challenge by attempting to identify innovation³⁶ patterns created in different individual motivation, organizational culture and challenge environments. Their characteristics are most easily distinguished in a bimodal fashion, but

³⁵ This chapter is largely based on my “Key Factors Influencing Innovation In Government.” and “Innovation Patterns.”

³⁶ In this paper innovation and change are used interchangeably since they manifest similar dynamics.

reality is rarely strictly bimodal. Nevertheless, this admittedly reductionist approach allows the observer to consider at one time three major forces that influence innovations and to explore the nature of the patterns formed.

The process of inter-relating the patterns of individual and collective reactions to innovation is conducted in six steps. First, in order to operationalize them, the criteria are outlined for the three elements. Next, motivation, organizational culture and challenge are formed into eight innovation patterns. Patterns relate the dynamics and are more powerful than an approach that addresses the factors independently. After that, an example of each pattern is identified. Then, the implications of the eight patterns for the creativity, implementation and outcome of innovations are explored. Finally, a systems

A bottom-up culture is characterized by: (1) Empowered relations, (2) Decentralization, (3) Organizational *slack* (excess capacity), (4) Professional/people and task/business cultures (Handy, 1986), (5) Emphasis on interpersonal communication patterns, (6) Staff encouraged to have and cultivate exterior networks, (7) Providing information to staff (although this point is not clearly demonstrated), (8) Recognition of the organization as a social system based on conflict, politicking and inherent tensions between individuals, departments and organizations, (9) Analysis of change from the perspective of the individual's definition of the situation, (10) Organization supports staff, pays attention to their ideas, creates strategies for and implements those ideas (Glor, 2001b), (11) Organization involves staff and puts organizational resources under their control (Glor, 2001b), (12) Some degree of democratic control in the workplace, and (13) organizational consciousness, parallel to Etzioni's (1968) societal consciousness.

Intrinsic task motivation is thought by Thomas and Velthouse (1990) to be created through:

- meaning (value of work goal or purpose),
- competence (self-efficacy),
- self-determination (autonomy in initiation and continuation of work, plus self-determined goals (Cofer, 1996)),
- impact (influence on work outcomes),
- staff motivators being aligned with the initiative being undertaken,
- the inherent reward of an act itself (Cofer, 1996), and
- individual consciousness (Etzioni, 1968).

analysis of the innovation patterns advances a possible explanation for the outcomes.

Criteria

A first step in identifying the patterns is defining criteria for the factors that are used to compose the patterns. Criteria for the three elements, motivation (intrinsic and extrinsic), organizational culture (top-down and bottom-up, and challenge (minor and major) are outlined in the boxes below (Glor, 2001c).

Motivation. Kirton (1984) among others has suggested that innovators are empowered or self-motivated in relation to innovation. As the variety of definitions for motivations make clear, individual motivation is not static. What motivates someone in one personal state and one environment will not be identical to what motivates them in another, but individuals tend to have patterns of motivation—to be typically intrinsically or extrinsically motivated. Extrinsic motivation has four criteria (see box previous page). James and

colleagues (1993, 1997), in particular, have attempted to develop a validated measure of public service motivation. Intrinsic motivation develops through personal experiences (box). Staff motivators are reflected in Perry and Wise's (1990):

- public sector affective motivation. Affective motivation is based on personal identification with a program that develops out of such factors as conviction about its social importance, service to society, and Frederickson and Hart's (1985) patriotism of benevolence, a combination of caring about the government's values and caring about others.
- rational motivation. Rational motivation is grounded in individual utility maximization, and includes desire to participate in the formulation of good public policy, commitment to a program because of personal identification with it, and conscious or unconscious advocacy for a special interest.
- norms-based public sector motivation. Norm-based motivation, based on idealism, includes the desire to serve the public interest, nationalism, loyalty to duty and to the government as a whole, and a commitment to social equity, defined as enhancing the well-being of minorities.

A top-down culture is characterized by: (1) Hierarchical relations and a focus on the control or authority structure (2) Centralization and formalization (3) Role and power cultures (Handy, 1986) (4) Emphasis on formal communication patterns, staff encouraged to "use channels" (5) Emphasis on structure and "one best way" of doing things (6) Provision of direction to innovate from above—for example from management or cabinet ministers (Glor, 2001b).

Organizational Culture. Culture is an organization's way of doing things, and can be summarized as top-down, based on hierarchy and power, or bottom-up, based on empowered relations. Empowered relations involve the personality of the employee, the impact of the social environment, or a participation process. The criteria for top-down and bottom-up culture are outlined in the boxes.

Challenge. Challenge can best be understood in terms of the balance between two aspects, risk and relative advantage. The boxes define criteria for minor and major challenges.

A major challenge includes: (1) High risk to individuals and/or the organization and management in terms of status, opportunities, self-esteem, time, work and psychic energy, (2) High personal risks, involving loss of power, money, status and respect, (3) Public risks, involving failure, career consequences, public scrutiny and/or negative media attention, (4) High magnitude of change, (5) Low compatibility with existing values and past experience of the receivers, (6) High perceived commitment to further change and high threat of change, (8) High threat, strategic change, evolutionary transition/revolutionary transformation, or changes in power relationships within the government or vis-a-vis groups outside the government, (9) Low relative advantage of the innovation compared to what it is superceding, high complexity in terms of understanding and use, low testability of the innovation, and observability of results.

A minor challenge is a: (1) Low risk to individuals and/or the organization and management in terms of status, opportunities, self-esteem, time, work and psychic energy, (2) Low personal risks, little loss of power, money, status and respect, (3) Low public risks, involving failure, career consequences, public scrutiny and/or negative media attention, (4) Low magnitude of change, (5) Compatibility with existing values and past experience of the implementers of the innovations, (6) Low perceived commitment to further change and low threat of change, (7) Innovation dealing with operational decisions, incremental change, status quo/expanded reproduction, evolutionary transition, (8) No or minor changes in power and power relationships within the government or vis-à-vis groups outside the government. (9) High relative advantage of the innovation compared to what it is superceding, low complexity both in terms of understanding and use, high testability of the innovation, and observability of the results.

Perry and his colleagues (1993, 1997) have had some success validating his definitions for motivations. At this point, these criteria should best be regarded as what Bacharach and Lawler (1980) call primitive concepts, that sensitize to issues and aid theory construction. While it is not possible to be completely precise, the patterns that would be produced by the three dimensions of motivation, culture and challenge in interaction are outlined below.

Mapping the Patterns

Interrelating the three dimensions constructs a map (Table 4) of eight innovation patterns, that have been named reactive, imposed, active, necessary, proactive, buy-in, transformational and continuous innovation. They are described below.

Table 4: Characteristics of Eight Innovation Patterns

Pattern Number	Innovation Pattern	Motivation	Culture	Net Magnitude of Challenge
1	Reactive	Extrinsic	Top-down	Minor
2	Imposed	Extrinsic	Top-down	Major
3	Active	Extrinsic	Bottom-up	Minor
4	Necessary	Extrinsic	Bottom-up	Major
5	Buy-in	Intrinsic	Top-down	Minor
6	Transformational	Intrinsic	Top-down	Major
7	Pro-Active	Intrinsic	Bottom-up	Minor
8	Continuous	Intrinsic	Bottom-up	Major

Extrinsically motivated innovations are often oriented to solving problems. The innovations are either programmed ahead of time or introduced in response to stress or distress. Among 217 innovations studied, Borins found that 30% were acting ahead of crises, 19% to political factors, and 49% were responding to internal problems, (more than one reason was allowed) (Borins, 1999: 375-387). Responding to crises and political factors probably created extrinsic motivation, while answering internal problems may have created intrinsic motivation. When innovations of minor challenge are created in a top-down culture in combination with extrinsic motivation, *reactive innovation* results.

Pattern #1: Reactive Innovation: Introduction of operating budgets in the Government of Canada. For many years, the Government of Canada used a line-item budgeting system in which each type of activity (e.g. salaries, travel, capital) was approved separately. In 1969 program budgeting was introduced in a variation called Policy and Program-Based System (PPBS). By 1984 it had been abandoned, and line-item budgeting was re-introduced. In the mid-1990s a variation on line-item budgeting was implemented, called operating budgets. Operating budgets grouped funding, and permitted funds to be transferred between salary and non-salary, but not capital budgets. Operating budgets were introduced following a period of cost-cutting during the 1980s and early 1990s, as the government moved into a period of major cuts to government expenditures. They allowed departments more flexibility in dealing with cuts, and facilitated lay-offs and contracting-out.

Operating budgets were an initiative of the Treasury Board Secretariat, introduced in a top-down manner. TBS staff were extrinsically motivated by the need to deal with the large government deficit and the need to give departments tools to deal with government's fiscal strategy. The operating budget innovation presented a minor challenge to staff, as it facilitated both the TBS' objective of reducing budgets and the departments' objective of dealing with smaller budgets. It did not require departmental approval. The challenges faced by staff were small and involved minor changes in power relationships, as the transfers still required Treasury Board (Cabinet committee) approval. The challenge posed by this budgeting innovation was thus minor. The impact on hierarchical relationships and the workplace were minor and changes were incremental.

The mixture of a top-down culture and major challenge with extrinsic motivation forces innovation on employees and produces *imposed innovation*.

Pattern #2: Imposed Innovation: Literacy New Brunswick. Literacy New Brunswick was the Province of New Brunswick's response to the 1990 International Year for Literacy. In 1990 New Brunswick's main literacy program was the federally-sponsored Adult Basic Education program for those who had not completed secondary or perhaps primary school. Those who succeeded in the program received a secondary school diploma. Although the program was provincial, it was funded by the federal government, and federal funding for the program had been declining over the previous ten years. ABE had been taught in community colleges around the province and the country for many years, with some but limited success.

The high rate of illiteracy in the province was highlighted during the Year for Literacy. The provincial government formed the objective to improve this pattern, in the context of declining resources, a provincial deficit, and one of Canada's poorer provinces. Literacy N.B. was thus an example of innovation induced by stress. It was extrinsically motivated: The high illiteracy rate demanded a response, but additional funds were not available.

In answer, the provincial government, a top-down culture, in a top-down fashion, decided to adopt a new decentralized model for literacy training. The literacy program was transferred to the control of local non-profit agencies. These agencies, largely with the help of volunteers, created partnerships with private sector companies, secured (usually free) space for classes, hired teachers and delivered the programs. The Province limited its role to employing program developers through community colleges and funding the instructors, at a non-professional salary level. All other costs were covered by the local partners. Although local literacy organizations wanted more role in literacy policy-making and delivery of programs, they had serious doubts about the approach and their added role without assured compensation. They believed that change was necessary, however, and were hopeful that the changes would create a stronger community base and involve clients more effectively. The community groups had cultures of the task, bottom-up cultures.

The new program worked very well: The number of people involved in literacy programs increased thirteen-fold and the students' results on tests went up considerably. Additional resources were brought into the program at the local level, from the private not the public sector. Through decentralization and devolution of responsibility for delivery to community agencies, Literacy N.B. converted literacy training from a top-down to a bottom-up culture. While the motivation of provincial officials in the context of the decision was extrinsic, and the non-profit agency officials' initial motivation for the change was extrinsic, the commitment of both provincial and agency officials to improved literacy was intrinsic. Implementation in this fashion was a major challenge for the public servants and the agency officials, since the agreement of numerous non-government organizations (NGOs) was required, new funding had to be found, and a new paradigm had to be adopted—literacy training had never been delivered in this way before. Frontier College was the only similar model, being an NGO that delivered literacy training through volunteers at job sites. For public servants it involved a major shift in the current ways of operating and thinking about the government's functions and changes in power relationships vis-a-vis a group outside the government. If such changes had been made internally, the program would have been even

Pattern #3: Active Innovation: Our Missing Children. International Project Return, known in the NGO sector as Our Missing Children, was initiated by organized parents who had lost their children either as run-aways or by abduction. Abduction was often committed by a separated spouse who subsequently took the child out of the country and beyond the reach of Canadian law and resolutions of the dispute. These Canadian parents, now organized through the International Centre for Missing and Exploited Children in Alexandria, Virginia, approached Canada Customs to create a program to search for these children at borders, similar to a program already operating in the USA.

The goal of the program is to help locate abducted or missing children and return them to their proper guardians. This initiative involves the Canada Customs and Revenue Agency, the federal police (RCMP), Citizenship and Immigration Canada, and the Department of Foreign Affairs and International Trade. Over 3,500 CCRA customs officers are on the alert for abducted or missing children at international airports and land border crossings. The program is part of a network of more than 40 countries that exchange information on missing children. Canada Custom's involvement dates from 1986. By April 1999, customs and immigration officers had recovered 815 missing children, of whom 525 were runaways and 290 had been abducted. (Canada Customs, 2001)

Canada Customs was a unionized organization, with regulatory and some police-like authorities, and a role-based, top-down culture. This culture received a shock with the appointment of a non-directive woman, Ruth Hubbard, as Assistant Deputy Minister (ADM). With knowledge of the American program and the approach, but with no one telling them they must do it, and with no additional resources or compensation, customs officers responded to the request of the parents and the ADM, agreeing to take on the added responsibility of the program. The initiative was therefore extrinsically motivated but was responded to in a bottom-up manner. It presented a minor challenge since it involved minor changes to operations and incremental change and is therefore an example of active innovation.

Extrinsic motivation can also occur in bottom-up cultures, though one of the objectives of such cultures is often to induce and facilitate intrinsic motivation. Extrinsic motivation combined with a bottom-up culture could occur, however, when exterior forces such as budget deficits impinge on people. Although in such a situation staff are not intrinsically motivated, they can organize to deal with the challenge in a bottom-up matter. This unusual combination of extrinsic motivation with a bottom-up culture produces **active innovation** when combined with minor challenge.

Extrinsic motivation combined with a bottom-up culture and major challenge produces *necessary innovation*.

National Center for Missing & Exploited Children, 2001

95,633 calls to the hotline:

- 5,832 missing-children cases reported
- 95,633 Nonfamily abductions
- 823 family abductions
- 4,698 runaways/throwaways
- 215 lost, injured, or otherwise missing children

13,986 leads called in

73,780 information requests

2,035 cases of child pornography reported

Pattern #4: Necessary Innovation: National Defence Ship Repair Unit Atlantic. Ship Repair Unit Atlantic repaired ships for and was part of the Department of National Defence (DND) of Canada. It was a role-based, top-down culture with difficult union-management relationships. The military, its broader employer, was a power, top-down culture *par excellence*. In 1991 the Repair Unit faced looming, major budget cuts and the possibility of closure of its ship repair docks in Cape Scott, Nova Scotia and Esquimalt, British Columbia. In this environment, the union leadership from the Fleet Maintenance Facility Atlantic attended a National Joint Council (NJC) meeting in Ottawa. NJC is a nation-wide, federal government staff relations council that includes in its membership senior-level central agency management and national public service union representation. At the meeting the local union leadership saw a presentation on a change model known as a strategic alliance (Stepp and Schneider, 1995). Based on a foundation of earlier experiences working together on a quality program, the union approached management with the idea of creating a strategic labor-management alliance. Union and management agreed to do so. Together they developed strategies for dealing with a common problem—the need for substantial cost-cutting measures—and agreed to union membership on several committees, including the local Human Resources Committee. Total management control of human resources, especially staffing, and the lack of a seniority system, was a source of union-management conflict throughout the federal government. In face of ruinous problems, and despite the top-down national and local organizational cultures, management was willing to accept the union suggestion and manage in a bottom-up manner at the micro-level. The challenge faced by employees and management was major: It involved a major shift in current ways of operating and some change in power relationships.

Through agreed cost-cutting measures, union and management avoided lay-offs during the first round of cut-backs. In an environment of scarcity, the union and employees of National Defence Shipyard Atlantic chose to create both the strategic alliance and effective solutions. The alliance created a much more positive working environment that included union participation in resolution of human resources issues. While the budget cuts and eventually lay-offs were externally imposed, the partial solutions were intrinsically motivated and had a good deal of employee support. By 1999, the shipyard had dealt with a subsequent two rounds of lay-offs and faced a fourth. In the face of the fourth, union and management agreed to develop a joint form for a reverse order of merit process for lay-offs. Employee support was naturally in some cases reluctant. Despite the two earlier rounds of lay-offs, faced with a further round, and contract negotiations having just failed, union and management still maintained the alliance, and eventually agreed on a contract. The alliance held together and the shipyards did not close—the threat that had hung over the workers' heads throughout. Temporarily, at least, union and management replaced a local role culture with a local task culture—whether they have done so permanently will be revealed by the effects of a change in senior management that occurred in 1999. Ship Repair Unit Atlantic created necessary innovation.

Intrinsic motivation produces quite different kinds of behavior: There is more problem seeking and more problem solving at the local level than when people are extrinsically motivated.

Pattern #5: Proactive Innovation: Developing the World Wide Web

Doug Engelbart, while working at the Stanford Research Institute during the 1960s, developed word processing, the mouse, windows, hyperlinks that connect users with other documents, and videoconferencing. These innovations changed the way we interact with computers (Exhibits, 2004). Independently, during the 1980s, individuals who later established Apple and Microsoft, plus the well-established IBM, developed the personal computer. The PC eventually declined in price to become accessible for home use. Also during the 1980s, a computer-based communication system was built for the use of the US military and for exchange of complex scientific information by university and military-based scientists. The unique element of this system was its capacity to use any computer servers identified as part of its system and its capacity to re-route itself if computers were unavailable (busy, off-line, broken). During the late 1980s, it was made available on a wider basis. Surfing, however, was slow and hard. In 1990, Tim Berners-Lee, a computer scientist at CERN, the European Laboratory for Particle Physics in Geneva, created the world wide web, and a program, Enquire, that became today's WEB browser. He also developed the common web language, html; web addresses, urls; and a set of rules for linking computers across the Internet, HTTP. And it was he who assured that the web was open, nonproprietary and free. The widespread use of the web for transmitting information began in earnest in 1993 when Mosaic, the first graphical web browser was developed. Marc Andreessen, who co-wrote Mosaic, went on to co-found Netscape. Mosaic made widespread access to the www and other webs possible. The further development of Java by James Gosling, a Canadian, began while he was a student at Carnegie Melon University. Java allowed programs to run on many different machines, and turned Web pages into interactive programs. The individuals involved, albeit sequentially, were intrinsically motivated, they were working on these issues in bottom-up environments, and they faced a minor challenge. Few established, powerful groups had to be dealt with to introduce each improvement. Source: BusinessWeek, 1999; Quittner, 1999.; Lohr, 2001.

Intrinsically motivated innovations oriented toward problem finding often grow out of *slack* in the organization. They result from personal initiative, when individuals have or create the time to concentrate on something besides their immediate work: In such cases, the individual takes steps to deal with organizational or governmental problems either because the problem interests them or because the process to solve the problem interests them. Borins found 49% of the innovations he studied were responding to internal problems and 33% of the innovations were created in response to opportunities (Borins, 1999: 377). A combination of intrinsic motivation with a bottom-up culture and minor challenge produces ***proactive innovation***. From some perspectives proactive innovation can be seen as problem focussed, but the creation of solutions before agreement to solve the problem has been achieved within the organization places it in a less

convergent, active, problem-solving category.

If necessary, staff can recognize the validity of innovations imposed by others. The combination of intrinsic motivation with a top-down culture and minor challenge creates **buy-in innovation**.

Pattern #6: Buy-In Innovation: Mississauga's Capability Development Program. Beginning in the late 1980s, the City of Mississauga, Canada began a process of restructuring of the city administration. It explored the idea of a Total Quality Management program, but did not introduce one, instead introducing a human development plan initiated by a capability development program. Led out of the Commissioner of Human Resources' office, three staff were hired to implement this management training program and later a training program for a wider group of staff. Its purpose was to introduce a cultural shift in the city. Separately but at about the same time, the city introduced a strategic plan, a management strategy, a human resources vision, service standards, an awards program, and a re-engineering program. The City also introduced public polling about its services at this time. Satisfaction ratings went up and stayed up. Eventually the overall initiative lost steam, the head of the unit left, and although she was replaced, the initiative took a different turn, becoming a management consulting and development group, with re-engineering and human development roles.

Mississauga's program was introduced in a top-down manner, out of the office of the commissioner of human resources, but staff were enthusiastic and intrinsically motivated to improve services to the public. The capability development program put action in the hands of front-line managers and senior staff. Over time the human resources staff found it hard to continue to find ways to maintain enthusiasm on an ongoing basis. Staff did not take control of the opportunities and the program did not develop its own momentum. Separate from capability development, Mississauga introduced a customer service improvement program in its Parks and Recreation Department, public polling, a suggestion program, and a corporate awards program. As with many other suggestion programs, management implemented very few of the ideas developed by staff. The city broke down its overall effort to improve service and operations and motivate staff into small pieces by developing a number of separate programs, and thereby succeeded in keeping the challenge to a minor level. Had Mississauga faced the challenge of creating a culture of continuous improvement, this would have been a major challenge. It failed to address this challenge and instead faced the minor challenge of introducing and maintaining a capability development program for several years. Mississauga therefore addressed a minor challenge and created buy-in instead of continuous innovation.

In an environment where individuals are intrinsically motivated but there is a top-down culture and major challenge, **transformational innovation** is created.

Pattern #7: Transformational Innovation: Saskatchewan Potash Take-Over. Following a lengthy period of negotiations with the potash industry, in 1975 the Government of Saskatchewan introduced legislation that allowed it to assume ownership of potash mines. It did not use this power, but rather *purchased* slightly more than forty per cent of the industry, a controlling interest. Provincial ownership was consolidated in the Potash Corporation of Saskatchewan, a Crown corporation. The government was subsequently able to expand the industry, maintain head-office control in Saskatchewan, and introduce new initiatives such as a Work Environment Board, that involved sharing of power among workers and management.

The Premier created a Potash Secretariat in Executive Council to manage the innovation. The potash take-over was therefore done in a role-based, top-down manner. The initiators in the Premier's office had intrinsic motivation to find a way to secure better economic rents from the industry in the province, expand the industry and create head-office control. Staff in the Department of Natural Resources, the responsible line department, did not share this motivation, seeing their role as one of service to the industry. The challenge was major, involving policy and structural changes, the challenge of a major shift in the department's ways of thinking about its functions (which remained unmet), and a change in power relationships vis-a-vis a group outside the government. The result was a major change in policy and power relationships, and the impact on the industry was major.

Intrinsic motivation combined with a bottom-up culture and major challenge creates *continuous innovation*.

Pattern #8: Continuous Innovation: Health Canada's Health Promotion Program. For 25 years, Health Canada's health promotion program (HP) has introduced health promotion programs into Canada's health system. In the process, HP created a new profession, health educator. More recently it has advanced prevention programs. The Health Promotion Directorate grew out of the federal Ledain Commission's investigation of the possibility of legalizing marijuana in the early 1970s. The youthful staff to the Commission were largely integrated into the Health Promotion Directorate in the mid-1970s, and their approach was institutionalized. Within the context of Health and Welfare Canada (HWC), this initiative followed the creation of the first national hospital and medical care systems in North America in the late 1960s and early 1970s. An energetic, politically savvy group, HP created a power base by securing substantial funding for community-based programs. With these they created an alternate health service delivery system delivered through non-profit organizations.

Over the years the directorate created a series of new programs, including high-cost T.V. advertising, that gave profile and credibility to health promotion, and credit to a series of ministers of two different political affiliations. During the 1980s, alcohol and drugs, nutrition

Pattern #8: Continuous Innovation cont'd

created related to specific diseases such as HIV/AIDS and Alzheimer's disease, problems like family violence, and special population groups such as children and seniors. In the mid-1980s HP became internationally known for its conceptual frameworks for health promotion. During the early 1990s, the priority shifted to preventive programs for children. New programs highlighted the crucial impacts of the early years of child development. With provincial (Saskatchewan) leadership, initiatives for children were expanded to include redistribution of income as well as providing community-based pre-natal and developmental programs, much like the American Head Start program, which by then was known to be effective in the long term. These were followed by substantial budget cuts. The HP program successfully adapted its focus to meet political needs for programs and for budget cuts.

HP did not have one culture: It functioned internally and toward its clients as a culture of the task, but toward the rest of the department and the public health system, it functioned as a power culture. Because it consistently conducted consultations with NGOs and later provinces, HP was more inclusive than most federal programs. At the same time, HP also assumed forceful leadership in determining the direction of health promotion and public health in Canada. The Directorate's strategic and tactical leadership, political dexterity, financial resources, community power base, and understanding of communications allowed it to create continuous innovation over the course of 25 years.

The HP program involved intrinsic motivation, a bottom-up culture vis-a-vis NGOs and a major challenge—changes in strategy and policy, in the existing ways of operating and thinking about HWC's functions, and in power relationships within the organization.

In continuous innovation, major change is created both through cumulative minor changes and through periodic major changes. Table 5 outlines some criteria for assessing motivation, organizational culture and challenge.

Table 5: Criteria for Determining Innovation Patterns

Intrinsic Motivation	Extrinsic Motivation	Bottom-Up Organizational Culture	Top-Down Organizational Culture	High Challenge	Low Challenge
- Exhibited by people who experience self-efficacy, and understand their own needs (e.g. need for independence, completion, connection with others, serving society).	Perry and Wise's (1990) rational and norms-based public sector motivation:	Characterized by: empowered relations, decentralization, organizational slack, professional/people and task/business cultures (Handy, 1986)	Characterized by: - Hierarchical relations and a focus on the control or authority structure	- High risk to individuals and/or the organization and management in terms of status, opportunities, self-esteem, time, work and psychic energy	- Low risk to individuals and/or the organization and management in terms of status, opportunities, self-esteem, time, work and psychic energy
-Personal motivators are aligned with the initiative being undertaken, such as public sector affective motivation, based on personal identification with a program because of a conviction about its social importance, service to society, (Perry and Wise, 1990), and	- Rational motivation is grounded in individual utility maximization, and includes desire to participate in the formulation of good public policy, and conscious or unconscious advocacy for a special interest.	- Emphasis on interpersonal communication patterns, staff encouraged to have and cultivate exterior networks, possibly, an emphasis on providing information to staff.	- Role and power cultures (Handy, 1986) - Centralization and formalization	- Personal risks, involving loss of power, money, status and respect,	- Low personal risks, involving loss of power, money, status and respect,
Frederickson and Hart's (1985) patriotism of benevolence, a combination of caring about the government's values and caring about others.	- Norm-based motivation is based on idealism, and includes the desire to serve the public interest, nationalism, loyalty to duty and to the government as a ... (see below)	- Emphasis on organization as a social system based on conflict, politicking and inherent tensions between individuals, departments and organizations	- Emphasis on formal communication patterns, staff encouraged to "use channels"	- Public risks, involving failure, career consequences, public scrutiny and/or negative media attention	- Low public risks, involving failure, career consequences, public scrutiny and/or negative media attention

A Gardener Innovator's Guide to Innovating in Organizations

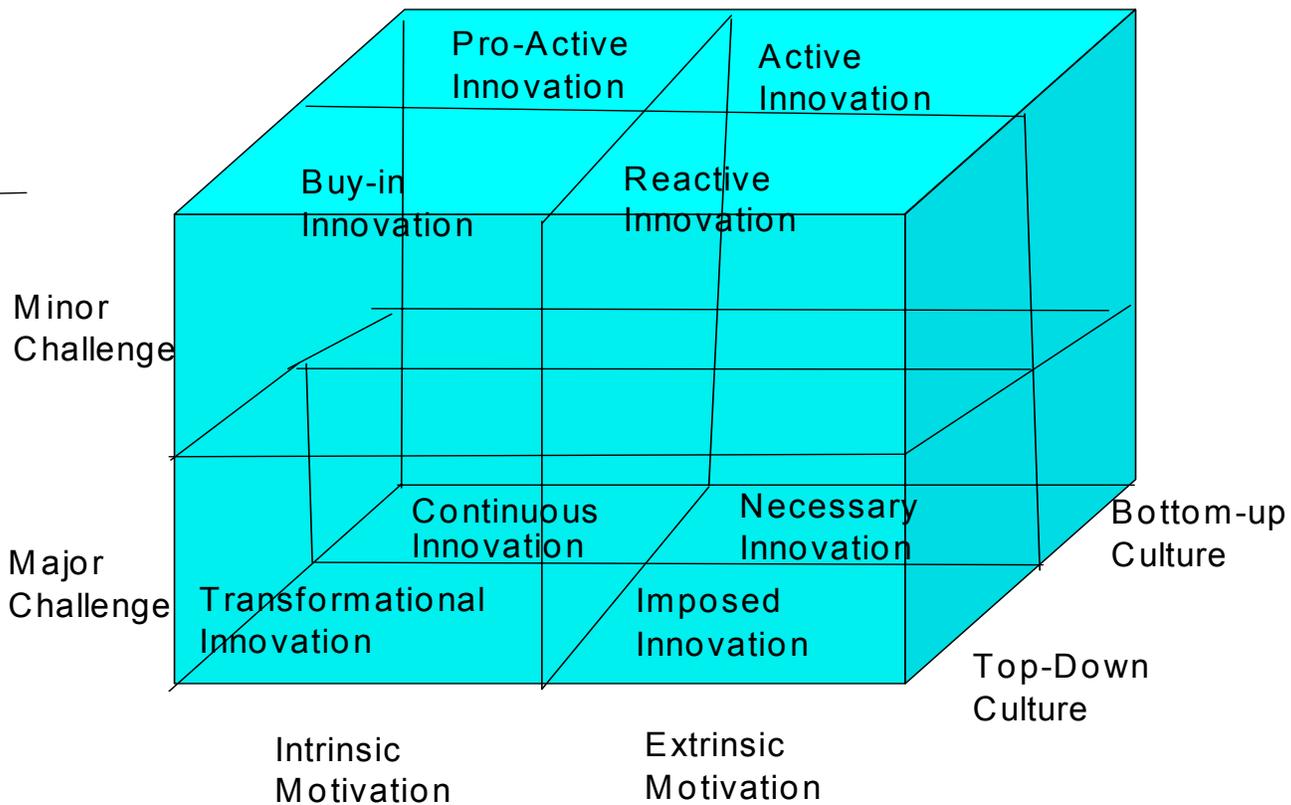
- Intrinsic task motivation is the same as intrinsic motivation, and is achieved in four ways: (see below)	whole, and a commitment to social equity, defined as enhancing the well-being of minorities.	- <i>Interpretive</i> view of culture	- Emphasis on structure and “one best way” of doing things	- High magnitude of change	- Low magnitude of change - Incremental change, status quo/expanded reproduction
meaning (value of work goal or purpose), competence (self-efficacy), self-determination (autonomy in initiation and continuation of work), and impact (influence on work outcomes). (Thomas and Velthouse, 1990)	- Includes four managerial motivations: productivity (efficiency), service-enhancement, organizational control, and risk avoidance (Perry <i>et. al.</i> , 1990).	-Analyses change from the perspective of the individual's definition of the situation - Organization supports staff, pays attention to their ideas, and creates strategies for and implements those ideas (Glor, 2000a)	-Organization does not pay attention to employees' perspectives	- Low relative advantage of the innovation compared to what it is superceding, high complexity in terms of understanding and use, low trialability, and observability of results.	- High relative advantage of the innovation compared to what it is superceding, low complexity in terms of understanding and use, high trialability, and observability of the results.
- Self-determined goals (Cofer, 1996)	These are influenced by individual, job, work environment, and external environments (Perry and Porter, 1982)	- Organization involves staff and puts organizational resources under their control (Glor, 2000a)	- Provides direction to innovate from above e.g. from management or cabinet ministers (Glor, 2000a)	- Low compatibility: low compatibility with existing values and past experience of the receivers	- Compatibility with existing values and past experience of the receivers.
	- Arbitrary rewards and goals, in contrast to the inherent reward of an act itself (Cofer, 1996)	- Democratic control in the workplace.		- High perceived commitment to further change and high threat of change.	- Low perceived commitment to further change and low threat of change.

A Gardener Innovator's Guide to Innovating in Organizations

				<ul style="list-style-type: none"> - High threat, strategic change, evolutionary transition/revolutionary transformation, or changes in power relationships within government or vis-a-vis groups outside the gov't. 	<ul style="list-style-type: none"> - Deals with operational decisions, evolutionary transition - No or minor changes in power relationships within the government or vis-a-vis groups outside government.
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Figure 2 represents the three factors of motivation, culture and challenge relating to form the eight models of innovation.

Figure 2: Innovation Patterns, Based on Source of Motivation, Organizational Culture and Magnitude of Challenge



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86: 154) has suggested that the course of diffusion of innovations is best understood as a product of interactions among psycho-social determinants, network structures, and properties of innovations, and that structural and psychological determinants of adoptive behavior should be addressed. These factors are very similar to individual motivation, the organizational culture and the challenge of an innovation identified in this paper.

According to Fritjof Capra (1996: 80), a pattern of thinking (here called culture) has been treated in systems analyses as “a configuration of relationships characteristic of a particular system.” The study of patterns therefore focuses more on form than substance. Although the systems approach does not emphasize structure, patterns are consistent ways of doing things. The three factors can be seen as being in relationship—the individuals within the organization relate to themselves (individual motivation), to each other (culture) and to the innovation (challenge). Together these relationships among the individual, collectivity and challenge interact to form the eight patterns identified in this paper. They do so, however, within a context that consists of the processes of self-regulation, both autopoietic and responding to factors that are impinging from the environment, and the sources of order within the organization. Systems theory identifies both

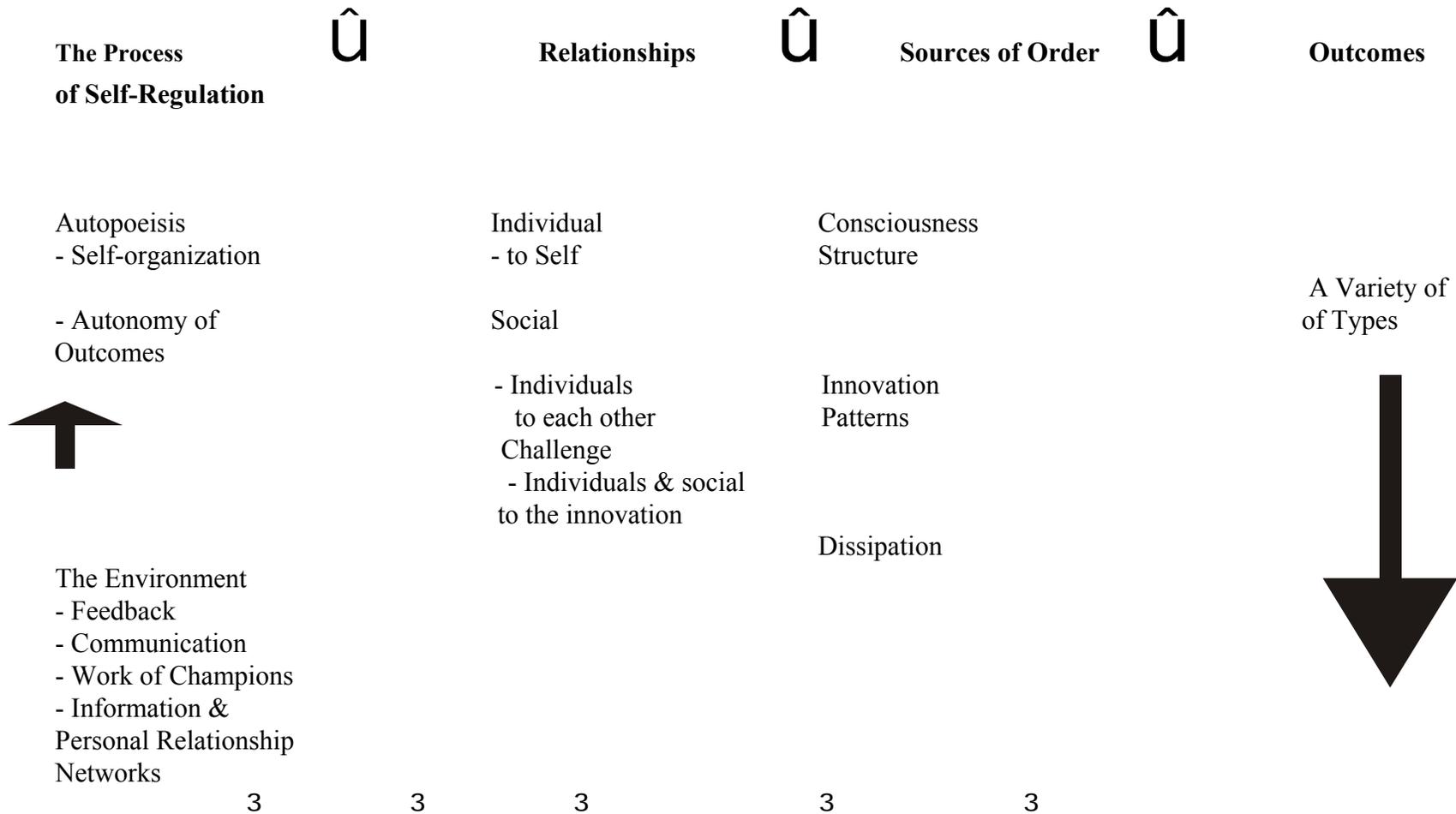
structure/order and dissipation as sources of order. Both structure and dissipation are at work at the same time. Once they are formed, the innovation patterns may actually function as a process bringing order to the organization as well.

The work of Robert Putnam (1993) on civic culture and its relationship to good government, innovation and progress raises for me the question of whether organizational culture and societal culture are related. Do hierarchical and elitist civic societies tend to have hierarchical and elitist organizations, while participative and democratic societies tend to have participative and democratic organizations? Although this paper cannot answer this question, the context provided by governmental, private and non-profit organizations is an important one in systems analysis. If it were true that organizations tend to replicate societal patterns, and that methods of interacting within organizations mirror methods of communicating in societies, organizations could be expected to create vicious and virtuous circles internally.

If organizations imitate their societies, this would help to explain the innovation adoption patterns of organizations. The relationships identified here as motivation, organizational culture and challenge of the innovation do not stand alone in the innovation. They are influenced by factors like the process of self-regulation, sources of order, outcomes as they become a source of feedback, and the environment as it influences the organization. Hence, innovation may occur in patterns similar to those already established in the organization, and possibly those already established in the society. Because the same forces are at work on the innovation, the organization and the society, innovation is imbedded in and may tend to mimic the patterns around it. Nonetheless, because innovation also involves creativity, will, change, and new combinations of patterns, unique action occurs. The amount of unique behavior is what the innovation pattern is largely reflecting. An attempt to represent the forming of innovation patterns and the factors at work, with an emphasis on the coordinating mechanisms of self-regulation, relationships, forces for order, and outcomes, is presented as Figure 3. Of primary importance is the role of patterns: "The central characteristic of an autopoietic system is that it undergoes continual structural changes while preserving its web-like pattern of organization." (Capra, 1996: 213.)³⁷

³⁷ There are two kinds of self-organizing networks, autopoietic and non-autopoietic. Autopoiesis is a network pattern in which "the function of each component is to participate in the production or transformation of other components" (Capra, 1996: 202) It has three criteria: the system is self-bounded, self-generating, and self-perpetuating (Fleischaker, 1990).

Figure 3: The Context for Innovation in Organizations



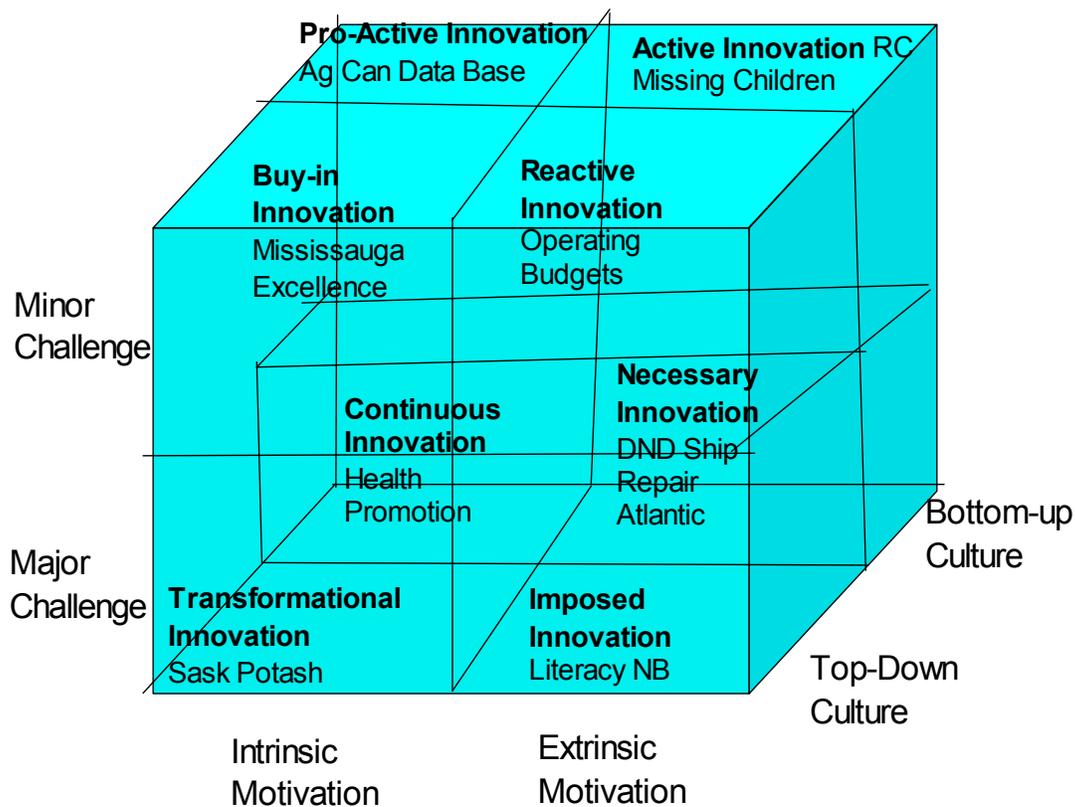
Just as Robert Putnam (1993) found societies have consistent configurations of relationships, organizations have patterns of ways of doing things—including innovation—growing out of the influential interaction of individuals, organizational culture and the challenge presented by the innovation. Through the processes of competition and cooperation, creation and mutual adaptation, through life's inherent tendency to create novelty, and in the spontaneous emergence of greater complexity and order, organisms (Capra, 1996: 222) and, this book argues, organizations change. A question for further examination is whether the outcomes growing out of these relationships and processes also form patterns.

Examples of the Innovation Patterns³⁸

An example of each of the patterns has been provided. Every example did not exhibit every possible criterion, but each exhibited most of them. Reactive innovation is illustrated by introduction of operating budgets in the Government of Canada, active innovation by the Our Missing Children program of Canada Customs, necessary innovation by the strategic alliance in the Department of National Defense, imposed innovation by Literacy New Brunswick, proactive innovation by development of the world wide web, buy-in innovation by the City of Mississauga's excellence program, transformational innovation by purchase of a controlling interest in the potash industry in Saskatchewan, and continuous innovation by the Health Canada health promotion program. Figure 4 shows which pattern each example fits.

³⁸ Most of this section was previously published in Glor, 2001c. The sources of information for these examples are identified there.

Figure 4: Examples of Innovation Patterns, Based on Source of Motivation, Organizational Culture and Magnitude of Change



Analyzing the Examples

Forces for Change. As in most governments over the last twenty-five years, innovation occurred in almost all of these cases in an environment of financial scarcity. Frequently innovation was driven by central budget cuts, accompanied by an emphasis by central policy staff on the need to innovate and by the willingness of central staff to approve innovations when they came forward for approval. Central support was found in deputy ministers' offices, ministers' offices and central agencies. All of the governments provided some kind of central support. New Brunswick provided strong leadership from the central agencies for an innovative thrust, originating from the Premier's office. Central support was also created in the federal government, the Privy Council Office, the Department of Finance and Treasury Board provided formal

guidelines about the type of innovation wanted—cost savings, privatization, alternate service delivery—and departments responding to these guidelines. The atmosphere provided expectations for innovation but within narrow limits in these centrally-driven initiatives. Health Promotion was an exception to central leadership, as it was one program area that retained public support and remained a government priority throughout the downsizing exercises. Despite major cuts to its communications and grants/contributions programs, HP retained political support through its flexibility in serving issues and target groups of concern to the governments in power, and recouped some of its funding, once the downsizing period ended in the late 1990s. Hard work, discipline and integrity of ministers and senior officials were common characteristics of leadership in these governments.

Central agencies drove change with introduction of operating budgets, Literacy New Brunswick, the potash take-over and Mississauga's capability development program. A deputy minister played a key role in Missing Children, and directors-general in the DND shipyard and Health Promotion.

Central support found in:

- Deputy ministers' offices
- Ministers' offices
- Central agencies
- Strong leadership

These are the three highest levels of authority in the Canadian federal government. Only once in these examples was innovation initiated at the front line, with the partnerships data base, and then by a former manager, not by front line staff. This innovation did not survive. At the same time, HP tried to be more inclusive, DND Ship Repair Yard more collaborative, the community groups in Literacy NB were highly collaborative. In every case staff exhibited a positive, *can do* attitude in response to both inclusive and top-down approaches, as would be expected, since these were cases of successfully implemented innovation.

Although many examples served cost-saving objectives, some also emphasized service to the public. A redesigned literacy program was more effective and provided better service. Customs responded to a need to trace missing children—as did Customs in the USA and other countries. The shipyard reduced costs, and created a local task culture in a role culture department. Only one case involved increased use of technology—the partnerships data base—although most governments have introduced more technology in recent years.

Strategies for Engaging Staff:

- Encourage staff to create innovations
- Training
- The opportunity to make a difference
- Active problem-solving

Individuals vs. Organizational Culture Although there was one individual innovator, none of these environments sustained individual innovators directly, by drawing on personal creativity and tacit knowledge or encouraging staff to create innovations.³⁹ The Canada shipyard engaged staff through training their union representatives while Health Promotion attracted staff through

³⁹ Even governments that did, such as the City of Mississauga through its suggestion programs, did not solve the problem of more than 90% rejection rates of employee ideas. Its period of energetic change lasted about three years.

the opportunity to make a difference with stakeholders who served high risk populations and with the Canadian public. Mississauga offered incentives to staff who found ways to save money and created a quality service award. The shipyard, HP, Mississauga and an individual actively problem-solved. The first three illustrated ways in which governments can successfully involve and motivate a substantial portion of employees, not just a few individuals. These three examples may suggest that governments can find ways to help staff become more effective and successful in converting their tacit ideas into explicit suggestions for improvement. None of the cases achieved the next level in an innovative culture, however, that some Japanese companies have created—continuous innovation through active and continual implementation of staff suggestions. (Nonaka and Takeuchi, 1995)

While individual motivation was essential, the culture of governments also played an essential part in determining how much innovation and what type of innovation was acceptable. Both New Brunswick and Saskatchewan put in place a top-down continuous innovation culture for most of years. Central agencies, ministerial and senior policy staff support to innovation was essential.

Power and Innovation. When front-line support was combined with central agency and senior staff support, or when governments created innovative policy, governments effected major change, change that modified power relationships. In the ship repair yards, the partnership formed between management and employees led to real power sharing, including issues concerning personnel. This partnership has now continued for 8 years: Whether the partnership will be integrated into the organization (routinized) in the long term has not yet been determined. These results underline the difficulty of achieving changes in power: Doubtless the lower impact on hierarchical power relationships is essential to the greater ease of introducing incremental changes than major ones (as noted by Everett Rogers, 1995). The introduction of operating budgets, for example, did not change any power relationships. Innovations creating change in power relationships had more potential to make a substantial difference than those that did not.

Change that modified power relationships had:

- Frontline and management support
- Power bases

Motivation, governmental relationship to innovation, the way innovation was introduced, and the impacts of the innovation were interrelated. Top-down reactive innovations, requested by management, had little difficulty securing approval from management and elected officials. Active innovations, on the other hand, although more novel in their character, often had more trouble getting anchored in the culture. The partnerships data base, for example, became an orphaned innovation in search of a problem to solve or a sponsor to maintain it. Depending on the level of government that was active, either securing approval or gaining acceptance in the unit responsible could be an uncertain stage in the process, because these were the innovations that changed power relationships most. Individual creativity alone and innovations without broader

institutional support had limited potential for success.

These examples of innovation all required power bases. Staff that successfully motivated and/or implemented innovations in these cases used one of three power strategies—a reactive response to a centrally-driven strategy; a cooperative, bottom-up union-initiated strategy; or a client- or politically-based, outside-in strategy. The strategic alliance in the shipyard was maintained for eight years, but the effect of the retirement of the head of the shipyard in 1999 bears watching. Top-down ongoing innovation was achieved for nearly a decade in New Brunswick and Saskatchewan, but the McKenna and Blakeney governments were both less innovative at the end than at the beginning of their mandates. The change of government and loss of the Clerk/Secretary to the Executive Council to the federal government may draw this period to a close in New Brunswick: It does not appear to have become continuous innovation. Transformational change was achieved and maintained in Saskatchewan potash, too, until the government lost power. Only Health Promotion among these examples was able to create ongoing innovation across changes of government. The challenge for the future is to introduce a cultural change that creates ongoing support for innovation and for the people who are expected to implement it.

Three Power Strategies:

- Reactive response to a centrally-driven strategy
- Cooperative, bottom-up union-initiated strategy
- Client- or politically-based, outside-in strategy

The combination of motivation and culture may have influenced the magnitude of challenge that was acceptable to public servants. For the most part, though, the challenge was defined by authority. Magnitude became a function of the combination of the nature of the objective framed and the power and will of the government to implement it. As Everett Rogers pointed out, “elites are inclined to screen out innovations whose consequences threaten to disturb the *status quo*, for such disruption may lead to a loss of position for the elite. The ‘dangerous’ innovations are often those of a restructuring nature, rather than new ideas which will affect only the functioning of the system.” (Rogers, 1995: 340) Yet the degree and duration of the change in turn often determined its impact on the public.

For the most part, the *level of challenge* was defined by authority.

Impact on the Public. As might have been expected, minor challenges produced minor change in service to the public, while successfully met major challenges, in combination with organizational support, produced major change in service to the public. The innovations created in response to minor challenges were retained and became routine practice, but the fate of the major challenges was much more uncertain—they required ongoing support from champions, managers and elected officials.

Durability and longevity. Attaining enduring innovation was difficult, yet the duration of the innovative period made a big difference to how flexible and motile a government was able to be and how much change occurred. Sofer (1961) suggested that in the short run innovation can seem continuous by occurring in a chain reaction, but that viewed retrospectively innovation seems to have occurred in clusters. He identified the limited resources available to the executive as preventing the chain-reaction of innovation from continuing without end.

Durability of Innovations a Function of:

- Duration of the innovative period
- Span of government and leader in office
- Limited resources available to the executive
- Whether knowledge/learning created
- Both leadership and membership of organization have recognized the need
- Individual motivation, magnitude of challenge, organizational culture
- Whether innovation integrated/routinized

To Nonaka and Takeuchi, on the other hand, continuous innovation *is* possible. It is dependent on knowledge creation or learning in an environment where both the leadership and the membership of an organization have recognized the need for ongoing innovation. In this context, innovation is seen as organizational knowledge creation, in which the conversion of tacit, personal knowledge to explicit, organizational knowledge is crucial. Translation of tacit knowledge is increased as a result of frequent communication and dialogue; strategic rotation, especially between different functions and technologies; and access to information (Nonaka and Takeuchi, 1995). It is in the midst of redundancy and ambiguity that new knowledge is created.⁴⁰

Durability of change also had a political dimension: It seemed to be at least partially determined by the span of the government and leader in power, how different the next government was ideologically and thus whether it chose to change the relevant policy. The unsettled political arena of the 1970s-1990s made durability difficult to achieve (Glor, 2001c). Durability of an innovation was a function of both a capacity to make the innovation part of the government framework (institutionalize it) and to create sufficient public service and public acceptance that it became integrated (accepted as part of the culture). At times of change in dominant paradigms/ideologies, however, even long-term programs that had been previously

⁴⁰ To create the knowledge spiral, five conditions are required at the organizational level: intent/aspiration to create knowledge, autonomy of workers, fluctuation and creative chaos, redundancy, and requisite variety (an organization's internal diversity must match the variety and complexity of the environment). The organizational knowledge creation process involves sharing tacit knowledge, creating concepts, justifying concepts, building an archetype, and moving the new knowledge on to a new cycle of knowledge creation at both an intra-and inter-organizational level. According to Nonaka and Takeuchi, Japanese companies have been successful because they are experts at creating organizational knowledge: they create new knowledge, disseminate it, and embody it in products, systems and services. They do so on a continual, incremental basis. "... the creation of new knowledge is as much about ideals as it is about ideas. The essence of innovation is to recreate the world, including the company and everyone in it, according to a particular ideal or vision." (Nonaka and Takeuchi, 1995)

institutionalized, routinized, and integrated, as well as recent innovations, were at risk.

Individual motivation, magnitude of challenge, and whether the innovation was allowed to become integrated were important for the innovation's durability. Management was also important not just in implementing individual innovations and reinforcing long-term support for innovation, but also in influencing the organizational culture. The predominant pattern of change management in the cases studied was top-down. No examples of truly bottom-up cultures in the public service were discovered in this research. As a result, examples were used where the action in the particular instance or in certain kinds of situations was bottom-up. The loss of individual initiative and intrinsic motivation inherent in the top-down approach has a cost in innovation foregone. Figure 4 interrelates the dimensions of motivation, organizational culture and challenge to form a visual image of the eight types *and* the eight examples of innovation.

Predicting the Characteristics and Outcomes of Patterns

The discussion of innovation patterns has so far been an argument for their existence and a presentation of possible patterns. One of the weaknesses of systemic and holistic analyses has been their inability to predict the future. No systems for predicting social behavior are actually very good. But, in a spirit of moving understanding of innovation patterns forward, an attempt is made here to predict some characteristics and outcomes of the innovation patterns.

Five factors are predicted—the creativity of innovations conforming to each pattern, the implementation environment, their impact and fate, what will be easy to do, and what will be hard to do with each pattern.

The Creativity of Innovations. The creativity of innovations proposed and adopted by an organization and how different the innovations are from existing reality describe the field of options that are considered by an organization. It is likely that the more options considered, the better the innovation in terms of its fit with the organization and its capacity to deal with the problem or issue being addressed. The creativity of innovations is considered a function of the number of ideas proposed (Basadur, 1994) and the variability of the ideas put forward for consideration, one from the other.

The combination of extrinsic motivation and a top-down culture with an innovation that presents a minor challenge—reactive innovation—will likely produce few ideas for change and little variability of ideas. If the challenge is somewhat higher—imposed innovation—then the ideas may increase in variability. Extrinsic motivation combined with a bottom-up culture and a minor challenge—active innovation—would likely produce low to medium numbers of and low variability of ideas. Extrinsic motivation combined with a bottom-up culture and a major challenge—necessary innovation—would likely produce a large number of ideas but medium or even low variability of ideas. Intrinsic motivation in conjunction with a bottom-up culture and a minor challenge—proactive innovation—would likely produce medium/high numbers of ideas but low variability of ideas, while intrinsic motivation combined with a top-down culture and high challenge—buy-in innovation—would more likely produce low numbers of ideas and low variability of ideas. Intrinsic innovation combined with a bottom-up culture and major challenge—continuous innovation—would produce high numbers of ideas, high variation from the current situation, and large and small variation among the ideas. Intrinsic motivation combined

with a bottom-up culture and high challenge—transformational innovation—would probably produce large numbers of ideas, ideas with high variation from the *status quo*, but little variation among them. Thus the most change would likely come from continuous and transformational innovation. Table 6 summarizes the creativity of each pattern.

Table 6: Level of Creativity in Eight Innovation Patterns

Innovation Pattern	Motivation	Type of Org. Culture	Net Magnitude of Challenge	Creativity	
				# of ideas	Variability of Ideas
Reactive	Extrinsic	Top-down	Minor	Low	Low
Imposed	Extrinsic	Top-down	Major	Low	Medium
Active	Extrinsic	Bottom-up	Minor/ Medium	Low- Medium	Low
Necessary	Extrinsic	Bottom-up	Major	High	Medium-low
Buy-in	Intrinsic	Top-down	Minor	Low	Low
Transfor- mational	Intrinsic	Top-down	High	High	High variation from status quo Low from each other
Pro-Active	Intrinsic	Bottom-up	Minor	Medium-high	Low
Continuous	Intrinsic	Bottom-up	Numerous, minor, medium, high magnitude	High	All kinds

The Implementation Environment. The patterns emphasize whether the initiative for change is intrinsically motivated, originating from within the work unit or the individual, or extrinsically motivated, originating from above in the hierarchy/from the outside—with new actors and factors impinging on staff to encourage or force them to change. People who are pushed or forced to change are rarely committed to that change in a fundamental way. In organizations where extrinsic motivation is dominant, therefore, change is not likely to be well accepted. As a result, the change does not have an easy time becoming routinized. Change and innovation that are introduced from within, concomitantly, have a much easier time. Sometimes innovation initiated from within leads to less change, but not always. But front line initiatives often lack central support and therefore have difficulty getting approved.

A dilemma inherent in innovation thus becomes apparent: the innovations that are easiest to implement and retain typically create the least change. There are exceptions, however (see boxes).

A Dilemma

- Reactive and buy-in innovation produce fewer new ideas, less variation within the ideas and less cultural support to innovators, but are easily approved, implemented and integrated.
- Active and proactive innovation produce more ideas, but they are of little variability from the status quo, and the culture does not support the innovators. Suggestions are well accepted in the local work unit, but are not well accepted in the larger organization, because they lack the support of senior management.
- Necessary and imposed innovation have mixed support. Created through extrinsic motivation, necessary innovation is easily approved, but it has trouble getting implemented, the centre supports the innovations, but the environment does not support innovators and the innovation is not easily integrated in the workplace. Imposed innovation receives easy approval and has high support from the centre, but does not support innovators and is not easily implemented or integrated.

Table 7 suggests the implementation environment for each type of innovation, in terms of ease of approval, implementation and integration, support to innovators and central support to innovation.

Outcomes: Integration, Fate and Impact of Innovations. Much innovation fails. The discussion of the implementation environment above suggested some of the steps in implementation that are most likely to fail for each pattern. On the basis of the patterns and their implementation environments, it is possible to identify likely integration patterns, and to identify the challenges that are likely to be faced by a practitioner when confronting these patterns, in terms of likely fates and impacts of the patterns. Table 8 outlines these outcome challenges.

Only two types of innovation both engage the individual and create major challenges to the status quo.

- ***Transformational innovation*** produces many ideas, with the highest level of variability from the usual ways of doing things, but the ideas tend to be *of a kind*. The culture provides some support to innovators, accepts changes and readily implements them, but integration is often difficult. This can be the most ideological of the environments.
- Only ***continuous innovation***—intrinsicly motivated, consistently addressing minor challenges, addressing some major changes, in a bottom-up culture—engages the individual, the collectivity and its management. It creates an environment in which many new ideas are brought forward, some of which vary considerably from the usual answers, yet cultural support to innovators is high. The innovations are generally well received, easily implemented and routinized, because they grow from within the culture.

Table 7: Implementation Environment in Innovation Patterns

Pattern	Ease of Approval	Ease of Implementation	Support to Innovators	Central Support to Innovations
Reactive	High	High	Low	Low
Imposed	High	Low	Low	High
Active	Low	Low	Low	Low
Necessary	High	Low	Low	High
Buy-in	High	High	Low	Low
Transformational	Medium-High	High	Medium	High
Pro-Active	Low	Low organizationally, high locally	Low	Low
Continuous	High	High	High	High

Reactive innovation is likely to be successfully implemented but have little impact, because it has not engaged staff and has little carryover to other issues, approaches, or organizational power relationships. Imposed innovation may not be successfully implemented, since it is likely to create resistance in staff, and the impact is thus low. It can, however, have a major impact, if the centre insists. While active innovation has support at the front line, it does not have the support of management and is thus not likely to be approved. Necessary innovation, while it secures approval, has little support at the front line and thus has a dubious future and little impact. Proactive innovation, too, has trouble getting management approval and the impacts are small. Buy-in innovation has the opposite problem: it secures approval and is easily implemented, but lacks front-line support. Transformational innovation has management support and substantial front-line support. Since it is a top-down culture, a big change can be achieved, but it may lack front line and even public support. While it will probably be successfully implemented, and is likely to have a high impact, the innovation may lack durability: While the innovation has a high impact on power relationships, in a democracy it may not last. Only continuous innovation has both management and front-line support and is likely to be both successfully implemented *and*

have a medium impact and sometimes, overall, a substantial impact. It is not likely to affect power relationships, however.

Table 8: Outcomes of Innovation Patterns

Pattern	Ease of Routinization	Fate	Social Impact
Reactive	High	Adopted, little carryover	Low
Imposed	Low	Dubious	Low
Active	Low	Death	Low
Necessary	Low	Dubious	Low/High
Buy-in	Low?	Dubious	Low
Transformational	Low	Dubious	High
Pro-Active	High locally Low organizationally	Adopted	Low
Continuous	High	Adopted, carryover	Medium/high over time

As have other authors (Kanter, 1977; Lowe, 2001; Bandura, 1997; Glor, 2001b), the patterns point to the benefits for innovation of bottom-up cultures and intrinsic motivation. Where a consensus to change has been achieved between front line staff and senior management, substantial change can occur. Strebel (1996) describes this as renegotiation of the personal compact. All the elements of the patterns are laid out in Table 9. If some patterns can create major change, why is that?

Confirming the Patterns

This conceptual analysis of the innovation patterns has suggested that relatively consistent creativity, implementation and outcome patterns are likely to flow from the innovation patterns. Particular outcomes will result from specific patterns. In the previous section, I showed that each of the patterns could be found in real life. I also showed conceptually that they are likely to have different processes and outcomes. In this section, the innovation patterns are held up to two new tests. In the first test, participant observers were invited to identify the motivation, culture and challenge in their innovations and asked whether they recognize the creativity, implementation and outcomes in their patterns. Second, I test whether the patterns are subject to mathematical analysis.

Empirical evidence. One test of the patterns is whether people can see and analyze innovations in these terms. A participant-observer in an innovation attempted to identify and classify the creativity, implementation environment and outcomes for the innovations studied. The participant-observer was successful in doing so. The boxes present a summary of the analysis. A second example is analyzed in Glor, 2001c.

A Systems Analysis of the Patterns. Radical change is not common in either nature or organizations. The theory of evolution as outlined by Charles Darwin assumed that change occurred in nature as a process of continuous, incremental change from a lower, simpler, worse state to a higher, more complex, better state (Merriam-Webster Dictionary). Eldredge and Gould (1972) and Gould (1989) found that the fossil record indicated sudden and sometimes catastrophic change occurred periodically, but reinforced the idea that this was an unusual occurrence. The overall pattern they called punctuated equilibrium. In humans and in human organizations major change is not common, but does occur. This pattern of relationship to change is reflected in the patterns of innovation developed here. While overall the environment created in organizations is one of vital balance, the alignment and consistency of intent required to create either near-perfect equilibrium or continuous innovation does not happen very often.

Psycho-Social Rehabilitation

Perspective 1: The point of view of those who chose the innovation

Creativity, Fate, Impacts: The creativity shown in adopting the rehabilitation model throughout the hospital and by the PSR unit in disseminating it was fairly high. Staff of the PSR team are being quite creative in their approaches to other units of the hospital. The fate and impacts of the innovation are not yet known, as the project is in its early stages. The head of the Rehabilitation Unit resigned, however, perceiving the loss of the Rehabilitation Unit as a loss of power and potentially, if the dissemination strategy did not work, as the loss of the most progressive and effective strategy and unit in the hospital. Source: Ron Bell, psychologist, Psycho-Social Rehabilitation Unit, Royal Ottawa Hospital

Table 9: Characteristics and Challenges of Eight Innovation Patterns

Pat-tern No.	Inno-vation Pat-terns	Pattern Elements			Creativity		Innovation Support Structure		Implementation Challenges		Outcomes		
		Moti-vation	Culture	Mag-nitude of Challenge	# of ideas	Variability of Ideas	Sup-port to Innova-tors	Central Support to Innova-tions	Ease of Appro-val	Ease of Implemen-tation	Ease of Routiniza-tion	Fate	Social Impact
1	Reac-tive	Extrinsic	Top-down	Minor	Low	Low	Low	Low	High	High	High	Adopted, little carryover	Low
2	Impos-ed	Extrinsic	Top-down	Major	Low	Medium	Low	High	High	Low	Low	Dubious	Low
3	Active	Extrinsic	Bottom-up	Minor	Low-Medium	Low	Low	Low	Low	Low	Low	Death	Low
4	Necess-ary	Extrinsic	Bottom-up	Major	High	Medium-low	Low	High	High	Low	Low	Dubious	Low/High
5	Buy-in	Intrinsic	Top-down	Minor	Low	Low	Low	Low	High	High	Low?	Dubious	Low
6	Trans-forma-tional	Intrinsic	Top-down	Major	High	High from status quo. Low from each other	Me-dium	High	Me-dium-High	High	Low	Dubious	High
7	Pro-Active	Intrinsic	Bottom-up	Minor	Med-ium-high	Low	Low	Low	Low	Low organizationally, high locally	High locally Low organizationally	Adopted	Low
8	Con-tin-uous	Intrinsic	Bottom-up	Major	High	All kinds	High	High	High	High	High	Adopted, carryover	Medium-high over time

In systems analysis in the biological sciences, the character of the feedback loop is treated as a causal factor for whether a system becomes either self-balancing or self-reinforcing. A systems analysis of the innovation patterns may help to describe why this is the case. Based on a modification of the methodology outlined by Capra (1996: 56-64) for physical environments, a final test of the concept of patterns, a systems analysis of the eight innovation patterns is used to suggest an explanation for the proposed outcomes.

Definitions of motivation, culture and challenge have been provided in this chapter (in boxes). These three dimensions used to create the eight innovation patterns are analysed in terms of their alignment, with a steady state as the baseline, consistency of alignment represented by a plus (+) and imbalanced alignment represented by a minus (-), in Table 10. A fully consistent alignment, that is with all three relationships pushing in one direction, only occurs in the case of reactive innovation, the pattern that is the most stable, and continuous innovation, the one that creates the most change, respectively.

With outcomes becoming inputs for the next cycle of innovation, and creating reinforcement for the patterns, self-balancing or self-reinforcing feedback loops develop that are crucial in determining whether innovations cancel each other out, causing innovation in an organization to have minimal impact or fail, or create the capacity for ongoing innovation. By distinguishing self-balancing from self-reinforcing feedback loops in the innovation patterns, the analysis identifies the stability of the patterns and suggests that the stability has an impact on its fate. Self-balancing systems create dynamic balance, while self-reinforcing systems create virtuous or vicious cycles.

One of the striking things about four of the eight innovation patterns is their lack of coherence or self-reinforcement: The mixed factors composing them tend to cancel out their effects, making them self-balancing. The

Psycho-Social Rehab (cont'd)

Perspective 2: The rest of the hospital programs.

IST needs to be delivered in all 7 relatively autonomous programs in the hospital, with a goal of introducing rehabilitation approaches in all of them. Although all are responding to extrinsically motivating restructuring demands, and all face major challenges, several of these services have top-down organization cultures and management styles, while a few have bottom-up cultures. Some of the programs will experience the process as a *necessary innovation*, but most will experience IST as *imposed innovation*.

Implementation. The interplay of these two situations will influence the pattern of success the PSR team has in employing interactive staff training, as the essence of this approach is to create a bottom-up culture to grow PSR in a user-friendly manner. Where the adoption of the PSR program and approach is seen as a necessary innovation, implementation will be easy, but where it is seen as imposed, it will not.

Creativity. Because the ROH is an early adopter, not an initiator of the innovation, the creativity involved in its conception cannot be assessed. The creativity that staff show in implementing PSR can be expected to vary according to whether they perceive the innovation as imposed or necessary.

Fate, Impact. It is not yet possible to say what the fate or impact has been.

Self-reinforcing patterns:

- imposed
- active
- buy-in
- continuous

power that can be brought to bear through a top-down culture, for example, is in part cancelled out by the extrinsic motivation in imposed and active innovation. The conflict between intrinsic motivation and a top-down culture and between extrinsic motivation and a bottom-up culture cancel each other out in active, necessary, buy-in and transformational innovation. Only in imposed, active, continuous and buy-in innovation were motivations and organizational culture aligned to form self-reinforcing patterns. In active and buy-in innovation, however, the challenge is minor and the change is not likely to be substantial. In imposed and continuous innovation, on the other hand, the challenge is major, and substantial changes might be expected.

Self-balancing patterns:

- reactive
- pro-active
- necessary
- transformative

Table 10: Systems Analysis of the Feedback Loop/Fate of Innovation Patterns

Innovation Pattern	Motivation	Culture	Magnitude of Challenge	Feedback Loop Self-Balancing or Self-Reinforcing?	Possible Reason for Fate
Reactive	Extrinsic +	Top-down +	Minor +	+ Self-Balancing	Maintains balance as is.
Imposed	Extrinsic +	Top-down +	Major -	- Self-Reinforcing	Extrinsic motivation & top-down culture support current balance, but major challenge dominates.
Active	Extrinsic +	Bottom-up -	Minor +	- Self-Reinforcing	Impact of bottom-up culture is toward change.
Necessary	Extrinsic +	Bottom-up -	Major -	+ Self-Balancing	Combination of bottom-up culture and major change cancels out extrinsic motivation and assures balanced movement toward change.
Buy-in	Intrinsic -	Top-down +	Minor +	- Self-Reinforcing	Top-down culture and minor change assure no fundamental change occurs but intrinsic motivation unbalances.
Transformational	Intrinsic -	Top-down +	Major -	+ Self-Balancing	Top-down culture protects power even though motivation and magnitude of challenge have aligned for change.
Pro-Active	Intrinsic -	Bottom-up -	Minor +	+ Self-Balancing	Intrinsic motivation and bottom-up culture reinforce each other toward change, but change is minor.
Continuous	Intrinsic -	Bottom-up -	Major -	- Self-Reinforcing	All three patterns line up toward innovation and potentially unbalances organization.

A Gardener Innovator's Guide to Innovating in Organizations

Source for systems analysis technique: Frijof Capra, 1996, pp. 56-64.

+ = moves organization in equal direction, defined here as a steady state, not in the direction of change (innovation).

Extrinsic motivation, top-down management and minor challenge maintain a steady state.

- = moves organization in new direction, defined here as in the direction of innovation. Intrinsic motivation, bottom-up management and major challenge move in the direction of change.

Character of the feedback loop:

Self-balancing (-) if it contains an odd number of negative links.

Self-reinforcing (+) if it contains an even number of negative links.

Feedback loops are a mechanism for maintaining balance, so a self-reinforcing feedback loop is disruptive to the balance. For proponents of innovation, on the other hand, a self-reinforcing loop is seen as a positive thing. At the same time a self-reinforcing loop can be seen as a risk to those who hold power in an organization and sometimes to its members. Beyond the effects on individuals, the most worrisome risk with a self-reinforcing loop is that it will become a vicious circle instead of a virtuous circle. The self-reinforcing patterns—imposed, active, buy-in and continuous innovation—would have this risk. Analysis of the feedback loops of the innovation patterns has supported the suggestions about the impacts and fates of the patterns.

The purpose of this model building is to help generate discussion and theory-building about the major factors at work in innovation and to help innovators understand their organizations and the challenges they face better.

Challenges in Innovation

I began this book with a discussion of the innovation dilemmas as identified by Behn (1997), and will explore them further in chapter 10. These discussions identified three dilemmas that are specifically reflected in the innovation patterns, motivational dilemmas, the fear of innovation, and routinization dilemmas. The patterns and their implications discussed above highlight certain challenges over others for each pattern. The weaknesses of each pattern and actions that could be taken to deal with the weaknesses are outlined in Table 11. The gardener innovator would do well to consider her innovation in terms of where the challenges may lie and attempt to develop strategies to deal with those challenges. If the innovation is likely to have trouble getting approved, an innovation champion should concentrate, for example, on building coalitions, developing arguments, and setting up pilot projects to support approval. Alternatively, she could focus on finding partners who would be willing to test the innovation. This was discussed in more depth in chapter 7.

Table 11: Strategies for Dealing with Organizational Patterns

Organizational/ Innovation Pattern	Risks (Possible Weakness)	Possible Strategy	Appropriate Techniques
Reactive	Lack of sustained attention to problems because executives are responsive to all.	Direct staff to innovate. Reward innovation.	Devolve and decentralize responsibility for dealing with problems.
Imposed	No long-term impact from this innovation.	Avoid making an imposed innovation a one-off. Use this case to build capacity.	Skill and organization capacity building.
Active	Bottom-up agency will use its power to resist innovation too often.	Partnerships with other powerful actors in the culture.	Give individuals control and freedom, access to resources, let them go to it.
Necessary	Most obvious instead of best solution will be chosen.	Take time in choosing a solution.	Creativity enhancement techniques
Buy-in	Individuals will not be supported.	Demonstrate there is a problem and what it is.	Innovation Fund
Transformational	Moving too fast, ignoring individual values.	Mechanisms for supporting individuals.	Anonymous suggestion methods
Pro-Active	Moving too fast, leaving innovation to individuals, small impact.	Seek input from staff on how to proceed.	Creativity enhancement, team building.
Continuous	Innovation will peter out.	Provide support to innovation in decentralized and diversified way.	Fund units to innovate. Train all staff.

Conclusion

Chapter 8 has dealt with whether organizations follow patterns, the relationship between societal and organizational patterns, and whether the way organizations innovate follows patterns. Concluding that they do, it identified eight patterns, described an example of each, and analyzed the examples in terms of drivers of change, the relative importance of the individual and organizational culture, innovation and power, impact on the public, and durability/longevity of the innovations.

The model presented is concerned with how the relationships among individual motivation, organizational culture and magnitude of challenge interact in an organization to form innovation patterns. Motivation speaks to inputs, culture addresses the environment, while the magnitude of challenge addresses risk for the people in the organization. Top-down, extrinsically motivated, low risk environments give the appearance of attempting to create closed systems. Bottom-up, intrinsically motivated, high risk environments appear to be opening their system to the outside environment.

Innovating governments are not all the same: Individual motivation, organizational culture,

magnitude of challenge, longevity of innovations and willingness to change power relationships vary. While the reactive Liberal New Brunswick innovator introduced incremental innovations at the governmental level and major change at the community level, and the reactive Our Missing Children project stayed within its role-based paradigm, the active shipyard innovation introduced major, ground-shifting cultural change. Health Promotion created many programs, on an ongoing basis, that challenged power relationships within the department and in the community. When successful, it supported the organization's objectives, helped to change them, and gradually changed power relationships within the public health system if not vis-a-vis the medical and hospital systems. HP developed the capacity to secure the commitment of a wide range of staff and partners to innovation through the process of engagement. It did not, however, learn how to convert personal, tacit knowledge to explicit, organizationally- and generally-beneficial knowledge. This conversion skill was perhaps emergent in the shipyard, but none of the examples, including the Mississauga program that had a formal suggestion program, found a successful means to implement staff ideas on a broad basis. These eight examples have demonstrated that the innovation patterns identified analytically have in fact been created in Canadian governments over the past twenty-five years.

An idea is not an innovation—an innovation does not exist until it has been successfully implemented. Long-term survival of an innovation depends on its becoming routinized and when necessary institutionalized, and is bound up with the political climate. Although public servants cannot initiate all innovations, they do initiate some and could initiate many more, given the right climate. The impact and fate of these patterns would be an appropriate next issue for consideration. Reactive, imposed, active, necessary, proactive and buy-in innovation generally produce low creativity and minor impacts. When high creativity and major impact occur, they usually do so in one of three ways—through use of power from the centre; through ongoing, cumulative changes that produce a continuous impact; or through discontinuous, large leaps, similar to Ainsworth-Land's (1986) non-linear change and Eldredge and Gould's (1972) punctuated equilibrium, that produce a transformational impact.

The advantage of a model that integrates motivation, environment and magnitude of challenge is that it points to where an organization may have problems, and in which of these three domains it may need to act in order to encourage innovation. Proponents of an innovation that observed their governments following a reactive pattern might, for example, choose to take a more bottom-up approach and to assume bigger challenges. A systems analysis further hones an understanding of why this happens: only imposed, active, buy-in and continuous innovation produce self-reinforcing feedback loops. The others are self-balancing, and the factors involved cancel each other out. This analysis also makes clearer why so many innovations eventually disappear, despite being introduced with enthusiasm, while others reinforce the creation of innovations. Only self-reinforcing feedback loops, creating virtuous circles, are likely to continue.

Chapter 9 considers the practical application of these concepts for the gardener innovator.

Chapter 9: A Short Guide to Assessing Your Organization's Patterns

Introduction

While chapter 8 presented a set of new ideas about how innovation works—in patterns, chapter 9 is devoted to showing how to apply these ideas to the practice of innovation. First, it identifies some new questions for the innovation toolbox. Second, it uses the patterns to predict the characteristics of patterns and the outcomes that are likely when working within them.

How May I Determine My Society's and Organization's Pattern(s)?

If we are right that organizational patterns shape the implementation and determine the fate of innovations, it is going to be important to be able to determine what those are. In order to determine the pattern of your organization, follow the steps outlined below. The criteria for each of the components of the pattern were outlined in chapter 8. Definitions of each of the elements are given in boxes that follow.

Tool #11: Identify Drivers of Change

33. What are the drivers of change in your organization?

- (a) Financial scarcity Yes " No "
- (b) The competition Yes " No "
- (c) Enthusiastic individuals Yes " No "
- (d) Willingness of senior and central staff to approve innovations Yes " No "

- (e) Policies, guidelines Yes " No "
- (f) Political support Yes " No "
- (g) An earlier innovation Yes " No "
- (h) What was it? _____
- (i) An effort to be more inclusive Yes " No "
- (j) A desire to improve service to the public Yes " No "
- (k) Technology Yes " No "
- (l) Other _____

Step 1: What are the drivers of change in your organization? See Tool #11 (box) for some ideas.

Step 2: Using the criteria, assess the main motivation, culture and challenge presented by the innovation for your organization by answering questions 34-37 and use these to identify the patterns in your organization (see Tool #12).

Tool #12: Identify Your Society's and Organization's Patterns

34(a) Are the employees of your organization generally extrinsically motivated? Yes " No "

(b) Are the employees of your organization generally intrinsically motivated? Yes " No "

35(a) Is the culture in your organization top-down? Yes " No "

(b) Is the culture in your organization bottom-up? Yes " No "

36(a) Does the innovation represent a major challenge? Yes " No "

(b) Does the innovation represent a minor challenge? Yes " No "

37 (a) What is your organization's pattern relative to this innovation? (See Table 4 and Table 5 to calculate)

(b) Reactive Yes " No "

(c) Imposed Yes " No "

(d) Active Yes " No "

(e) Necessary Yes " No "

(f) Buy-in Yes " No "

(g) Transformational Yes " No "

(h) Pro-active Yes " No "

(i) Continuous Yes " No "

Tool #13: Assess Creativity

38. How creative are was your thought process?

(a) How many ideas were considered as you developed the idea? Low " Medium " High "

Number: _____

(b) How variable were the ideas from each other? Low " Medium " High "

(c) Did you conduct a creativity-enhancement activity? Yes " No "

Step 3: Using Table 4 and Table 5, determine the pattern of your organization in relation to your innovation.

Step 4: To assess the likely creativity of your innovation, consider what it is. Creativity is defined in the box.

Now answer the questions on creativity under Tool #13.

Creativity Is....

Creativity is the number of ideas (low, medium, high) considered in the innovation development process and the variability (low, medium, high) among the kinds of ideas considered.

Step 5:

Assess the implementation environment for your innovation. An implementation environment is defined in the box.

Now answer the questions on

Tool #14: Assess Implementation Environment

39. What is the implementation environment for your innovation?

- (a) Ease of approval Low " Medium " High "
- (b) Ease of implementation Low " Medium " High "
- (c) Support and sustenance to innovators Low " Medium " High "
- (d) Central support to innovators Low " Medium " High "

An Implementation Environment Is...

The implementation environment is defined in terms of five factors as: ease of approval (low, medium, high), ease of implementation (low, high), ease of integration (low, high), support to innovators (low, medium, high), and central support to innovations (low, high).

implementation under Tool #14.

Step 6: Take some time to think about these results. At absolute minimum, try to forget about them for a week, then reconsider them.

Step 7: Define the likely outcomes of your innovation. Outcomes are defined in the box. Now answer the questions on impact and fate under Tool #15 and Tool #16.

Step 8: Compare your conclusions to for creativity, implementation environment, impact and fate to those predicted for each of the patterns in Table 6, Table 7 and Table 8.

Tool #16: Assess Fate

42) How would you predict your innovation's fate? Will be adopted " Dubious " Death as soon as I leave "

Tool #15: Assess Impact

40. Will your innovation:

- (a) Improve efficiency?
- (b) Improve service to the public?
- (c) Reduce costs?
- (d) Be long-lasting?
- (e) Short-lived?
- (f) Be easily integrated?
- (g) Have a small impact on the issue being addressed?
- (h) A large impact?

41. (a) Will your innovation be easy to routinize (have incorporated as part of the way things are done)? Yes " No "

(b) Will power in your organization be changed by this innovation? Yes " No "
How? _____

Step 9: Now have a look at the pattern of your innovation in its entirety in Table 9. Would this level of creativity, this implementation environment, and these outcomes for your innovation be acceptable to you? If yes, you are off to the races. If not, what can you do about it? Remember the pattern of your organization as you think this through.

What Can You Do? If your organization is reactive, you may, for example, want to decentralize

responsibility for dealing with problems, then research best practices and be able to demonstrate that others have adopted this innovation. If your organization banks on necessary innovation, perhaps only a crisis will move it into innovation. But if there is a crisis, move slowly in choosing a solution. Some other suggestions for dealing with patterns are provided in Table 11.

Outcomes are...

Outcomes are defined as the fate of the innovation, i.e., what happened to it (adopted, dubious—still surviving but future not looking positive, death) and its impact (low, medium, high).

A Comment. The purpose of this exercise is not to make you depressed or elated about your innovation. It is to give you some tools that will help you determine what faces you on the road ahead. This assessment suggests what will be hard and what will be easy as you try to move your innovation forward. Each pattern has its unique challenges and requires different strategies and interventions.

Conclusion

The concepts of chapter 7 and chapter 8 have been transformed in chapter 9 into a set of tools and exercises with which innovators can work to understand better the social and organizational patterns with which they are working. These tools are not infallible—in fact, they have been tested very little. But they do represent a start on turning the systemic metaphor into a workable tool. Chapter 11 explores a pattern that allows an organization to innovate, one in which the gardener innovator can find a comfortable home. The key element is empowerment.

Chapter 10: Innovation is About Opportunity, Circumstance, Whole Systems, Groups and Patterns

Introduction

It should now be clear that the concepts and approaches to innovation developed in section III are different from those of section III. How different will be discussed in chapter 10. Section III has not so much emphasized controlling and changing the environment of the innovation, the organization and society, as understanding how these patterns work as a basis for deciding how to proceed within them. Chapter 10 summarizes the nature of the systemic environment by considering innovation viewed from both outside and inside the organization, and by bringing these perceptions together.

Innovation as Determined: an Analyst's and an Observer's Perspective⁴¹

While section II explored lessons learned from the perspective of management, planned change and implementation, section III is looking at them from the perspective of the distant observer.

Interest in the determinants of innovation has waned during the 1980s and 1990s, and funding for studies has largely disappeared. While the dominant model among organization behavior theorists and sociologists is currently the open systems model, public administration analysts have not generally adopted this approach.

Innovation is in many ways determined—it has causes and grows out of the past.

Deterministic analyses offer ways to understand the innovation process from the outside, as originating out of history and context (Leavy and Wilson, 1994). A determinants approach does not imply determinism, however.

Determinism suggests that if enough of the determinants can be identified, then the outcomes not only can be explained, but they must turn out the way they did, not only today, but in the future as well. While it is unlikely that all of the determinants can be adequately defined, it is also the case that people and organizations change and adapt, so that what happened last time is not sure to happen this time. My own most interesting experience with this phenomenon was with the federal government's performance in the IPAC award (Table 1). In the mid-1990s, I mentioned to several senior government officials my observation of the federal government's unexpectedly poor showing in the IPAC awards. These officials expressed their disagreement with the pattern, then nominated their innovative programs for the IPAC award, and won awards. The pattern changed, because there is free will.

At the same time as a determinants approach is more objective than reliance upon a

A **deterministic** focus emphasizes what causes innovation to occur as it does, on the understanding that change emerges and occurs through processes, not solely as the result of the will or leadership of pivotal individuals.

⁴¹ The material that follows references Glor, 2000a.

participant's perspective, practitioners often take the position that the observer's perspective is not relevant to them. Gow (1994) found that Canadian public administration practitioners do not read much, and when they read, their primary choice is private sector-oriented *how to*, voluntaristic material such as the *Harvard Business Review*. The atmosphere in government could be argued to be anti-intellectual both on this basis and on others (e.g. Glor, 1999b). Typically, practitioners ignore (especially the academic) observer's viewpoint, unless it is needed and serves a practical purpose. This lack of understanding of the broader context can be a weakness.

Lessons Learned from a Deterministic Perspective

What could be learned by taking a deterministic approach to innovation? The following points are offered for consideration.

Reality is not simple. If it can be understood at all, an attempt should be made to understand it in its complexity, not to simplify it. In this book the innovation process has been presented as a complex process involving individuals, a collective context, individual and collective reactions from the people involved, and patterns.

What happens in government is largely determined by what happens outside. Government does not control very much of its environment, despite the power it exercises, the resources it controls, and its attempts to do so: Even totalitarian governments that have made it their objective to control their society have ultimately been unsuccessful.

Public servants require knowledge of and a sensitivity to the broader environment.

Although politicians are a major source of information on the external environment for public servants, and are an important interpreter of that environment, without knowledge of and a feeling for the broader environment of the government—historical, political, social, cultural—public servants cannot provide good advice to ministers. One of the key risks for public servants who work too much face is getting out of touch with the society they serve.

The way things are thought about and done determines what can be done. Notions that governments should or should not be involved in certain kinds of activities, that urgent is more important than right, ideas like these determine what governments can conceive of themselves as doing. Likewise, the processes used to seek legitimacy and bring the complexity of the context into the consciousness of the innovators circumscribe what the government can do. Intelligence,

openness and flexibility are important to innovation.

Understand the fundamentals. In the busy government environment it is easy to forget about the broader determinants at work in society and in government. The focus on the immediate, the tendency to treat four years as the long-term, because of the political cycle, frequently turns public servants away from a broad understanding to deal primarily with the immediate. The all-consuming nature of their work also tends to keep public servants too narrowly centered. In the private sector, as well, the dictatorship of profit in the next quarter can keep employees too focused on results and not enough on the basics. Yet the fundamental determinants at work in society and the organization are important to innovation.

Lessons Learned–Deterministic Perspective

- Reality is not simple
- What happens in government is largely determined by what happens outside
- Public servants require knowledge of and a feeling for the broader environment
- The way things are thought about and done determines what can be done
- Understand the basics
- Consultation is crucial
- Adapt to the environment
- Public servants are often in conflict
- Processes are important
- Open models help

Consultation is crucial. Public servants need effective means for reading the public and stakeholders and gaining good ideas from them. Rather than providing better means for controlling the public and bending them to the government's will, those mechanisms must be means for empowering the public to provide guidance to government. This does not mean single issue groups should be given the opportunity to control their area of government. It does mean that elected and appointed officials must have good information about the population's needs and opinions in order to serve them well. It does mean the public and interest groups must take a responsible and informed approach to providing advice.

Adapt to the environment. The environment or culture—both external and internal—determines the innovations that are wanted and acceptable.

Public servants are often in conflict. Public servants must balance two very different roles: that of servant of the minister and servant of the public.

Processes are important. The process that occurs to create innovative outcomes is based on unique inputs, but appropriate processes can help or hinder innovation.

Open models help. Open models of the innovation or change process help both practitioners and analysts to consider what the inputs and outputs of government are, the historical and organizational context in which they are functioning, and how they can interact with their environment. Overall, maintenance of open systems, understanding of determinants, and attention to processes are important for practitioners. I support Wilson's criticism of management writers for their narrow focus as well as his urging that practitioners and academics alike take a more reflective

approach.

Dealing With a Complex Environment

Public servants' jobs are not simple. They need to be *externally focused*, keeping in mind the immediate circumstance, and the need for strengthening community and what the government wishes to accomplish. They must be *internally focused*, creating an empowered environment in which employees can actively and creatively deal with the problems, short- and long-term, in a whole society. They must be both externally and internally focused, in an attempt to create the most innovative of circumstances. This requires a virtuous cycle functioning within an organization, supported by a virtuous cycle of civic community functioning outside the organization. Innovators need to be aware that how we function inside our organizations affects our communities, and how our communities function affects our organizations. Tool #17 outlines some ideas for creating an open system.

Tool #17: Create an Open System

14. Are you working with people outside your environment? Yes " No " Mechanisms:

15. Are are you creating openness to new ideas? Yes " No " How?

16. Are *you* open to new ideas? Yes " No " How?

A whole systems approach emphasizes opportunity, circumstance and entire systems. It takes note of strategies, and attempts to explain or account for them. It keeps a broad perspective in mind, and a sense of how the whole functions in patterns. When working with employees, systemic innovators work cooperatively, delegating, enabling, and offering employees the opportunity to participate in a way that empowers and creates self-efficacy for the individual and democracy for the group. They facilitate employee empowerment by enabling self-actualization (A. H. Maslow) and self-efficacy (Bandura), by following the fifth discipline (Peter M. Senge) and the Rotary's Club's ethical principles, providing the enabling conditions for people to lead the most enriching lives they can (Bill O'Brien, President of Hanover Insurance, and former president of Rotary International, quoted in Senge, 1990: 140). They also follow Rosabeth Moss Kanter's (1977) advice for empowering staff, allowing staff to be creative (Glor, 1998b), to have 10% of their time free (3M), and recognize the human condition as autonomous, self-aware, but not independent (Capra, 1996: 287). While 3M allows all staff to have ten per cent of their time free to work on

“their” projects, what this means in reality is some take none, and others take 100 per cent.⁴²

A systemic approach to innovation recognizes the function innovation plays in organizations but also appreciates that organizations and societies follow patterns of functioning. There are innovators and there are adopters. Both are using innovation to deal effectively with their issues and problems, and to maintain their positive values. Democracies have a systemic mechanism for moving from one way of doing things to another that minimizes (or mediumizes) the disruption and conflict caused thereby.

Conclusion

Innovation is not about one thing, but is about many things. Our capacity as politicians, public servants or employees to change the way we do things—what Osborne and Plastrik (1997) and Landry (2000) call the DNA of innovation—is limited. We feel those limitations every day. At the same time, a broader look at the whole system in which we work, and its patterns of functioning, can help us to see the circumstances we face and the opportunities inherent in them. It may even help us see that and how patterns can be changed.

⁴² Presentation by William Coyne, former President of 3M Canada and Senior Vice President of Research and Development at 3M to the Challenge of Innovation in Government Conference, February 11-12, 2002.

Section IV: Innovation Requires Empowered People

Just as plants need fertilizer and gardens need air and light, people need empowerment in order to innovate. The issue of empowerment is explored in Section IV from four perspectives: empowerment of individuals in the workplace, empowerment of groups in the workplace, empowerment of government's clients, and empowerment of citizens.

Chapter 11 explores how to encourage innovation in a systematic and whole systems manner. It focuses on the role of empowerment of employees, in the same way that Section II emphasized empowerment of managers. Chapter 11 also discusses ways to enhance, and the results of evaluations of employee empowerment. The nature of empowerment as delegation, motivational enablement, and the process of participation, and the relative advantages of the three employee empowerment techniques are examined. The phenomena that follow from employee empowerment—creativity and knowledge creation—are also considered.

Chapter 12 takes up this exploration again, only this time from the perspective of group creativity and employee empowerment in the workplace. Nonaka's concept of group creativity is discussed.

Chapter 13 deals with the empowerment of clients and citizens. Empowerment of clients and citizens is a means to change societal culture and reduce challenges. While most management literature sees reducing challenges as a management function, this section takes a much broader approach to explore how the wide range of things that it is assumed are not wanted or not permitted can be influenced to achieve social and economic improvements.

Chapter 11: The Need for Bottom-up, Empowering Approaches: Individual Empowerment in the Workplace

Introduction

Some authors have examined how managers can be more innovative (see chapter 3) and others how they can allow more innovation (Horibe, 2001). Little research and few suggestions have been made about how employees can be innovative, as I am attempting in this book.

Half of innovation originates with front-line workers when they are not encouraged to innovate (Lowe, 2001). Imagine what could happen if they were encouraged to innovate!

Sandford Borins (2002: 79-84) found innovations were initiated by frontline staff in 27% of American government innovations, 39% of advanced Commonwealth country innovations, and 7% of developing Commonwealth country innovations (p. 84). Twenty-five per cent of advanced Commonwealth country innovators were supported by frontline workers and 15% of developing country innovators (p. 80). Graham Lowe (2001), in studying the Canadian workplace, concluded that one half of innovation originates with front-line workers. Yet, typically, front-line workers are not encouraged to innovate. When senior and middle managers are encouraged to innovate, it is typically in a manner that maintains control of policies, the work environment, and employees and constancy of patterns. Think about it. Half of innovation originates with front-line workers when they are not encouraged to innovate. Imagine what could happen if they were allowed and encouraged to innovate!

Creating readiness for change was treated in chapter 3 as a simple activity. In this chapter it is considered as a complex activity, that involves understanding creativity, the innovation process, and the role of people. It is what politicians do during elections, and pressure groups, leaders and political parties do outside of them as well. Unpleasant as politics is to many people, politics is one of the main, legitimate means for reallocating power, resources, ideologies, and ways of doing things in our society. Likewise, managers and leaders are the politicians of organizations, who develop readiness within organizations. Preparing for change is also, however, what we all do—for ourselves. Developing the capacity to change within an organization or a society is not under the control of any one person and is not only the responsibility of one person. The complex and controversial issue of developing support bears consideration.

Chapter 11 focuses on employee empowerment. It examines the kinds of interventions and the effect of interventions that can be made to encourage employee innovation as seen from within a whole systems framework. It looks, first, at what disempowers employees, then at some examples of employee empowerment. The chapter considers next the theory and practice of empowerment, then the nature of empowering processes and how to empower employees. Its penultimate subject is the content of the evaluations of the cases of employee empowerment presented. The chapter concludes that bottom-up empowerment has the potential to create systemic change in organizations, and thus help them to become innovative.

Important as empowering employees and managers is, they are not the only ones who need

to be empowered to encourage innovation. The process through which innovation occurs needs to be empowering, the clients of innovation need to be empowered by the innovation, and citizens and stakeholders need to be empowered. Chapter 12 and chapter 13 address these further issues.

Understanding the Role of People

When innovation is described as a five-stage process, as it was in chapter 3, the analogies that come to mind can be mechanical—assembly lines, computer switches, and highways, for example. Unlike clearly established, engineering-based processes, the innovation process is based entirely on people. It is people who create the will to innovate and change, people individually and in groups who identify options, people who negotiate and offer approval. People are the key to innovation—not methods and techniques, not analogies, not evaluation or concepts. If innovation is to bring about change (and it is important to realize that most organizations do not want innovations to bring about fundamental change) and to optimize potential benefits, not only leaders but also the rest of the people who are affected must be involved—employees, clients, and the public.

Mainstream management literature sometimes encourages managers to box their employees into change, so that they have no choice about it. This is both disrespectful and lacks understanding of how people change. It is not disempowered people who change and innovate, rather, it is empowered people. Empowerment is based on hope—hope that *things can get better around here*.

As people who have experienced revolutions and rebellions know, hope can be a dangerous thing. It leads people to act. It can change power relationships, for example, so that decisions are no longer the purview of the few, but involve the many. But an organization will never benefit from very many of the ideas and possibilities within its grasp unless it becomes a democratically based organization. Empowered people believe they have, and really do have, choices. They believe that change is worth the bother and the pain. Chapter 11 examines the issue of empowerment of the individual employee in the workplace and chapter 12 from the perspective of employees as a group.

What Leads to Employee Powerlessness?⁴³

Management theorists argue that specific *contextual factors* contribute to lowering personal power or self-efficacy in organizations. Bureaucratic contexts are seen to lack meaningful organizational goals and to have authoritarian management that encourages powerlessness. This context fosters dependency, denies self-expression and creates negative forms of manipulation. Conditions that lower personal power were found during major reorganizations, in start-up ventures, and in organizations that had authoritarian managers and demanding organizational goals. Organizational communication systems, network-forming arrangements, access to resources, and

⁴³ Some of this material on empowerment was previously published in Eleanor D. Glor. 2001c. "Ideas for enhancing employee empowerment in the government of Canada.." *Optimum, The Journal of Public Sector Management*. Vol. 30(3-4):14-26.

job design can also contribute to employee powerlessness. (Conger and Kanungo, 1988).

Kanter noted in particular the disempowerment of accountability without responsibility, where people are held accountable for the results produced by others. With a formal role that gives them the right to command, they lack “informal political influence, access to resources, outside status, sponsorship, or mobility prospects”. (Kanter, 1977, 1983: 186) Kanter gave examples of disempowerment among first-line supervisors, some staff positions, women and minorities.

Four categories of contextual factors lower belief in personal power—organizational factors, supervisory style, reward systems and job design. Conger and Kanungo, 1988

Organizational Contexts Leading to Powerlessness:

- bureaucratic environments
- lack of meaningful organizational goals
- authoritarian management that encourages powerlessness, fosters dependency, denies self-expression and creates negative forms of manipulation
- major reorganizations
- start-up ventures
- authoritarian managers and demanding organizational goals.
- organizational communication systems
- network-forming arrangements,
- access to resources
- job design

Conger and Kanungo identified four categories of contextual factors that lower belief in personal power—organizational factors, supervisory style, reward systems and job design. They hypothesized that the *organizational factors* contributing to disempowerment include major changes or transitions, financial emergencies, loss of key personnel, labor problems, significant technological changes, acquisition or merger, major changes in organizational strategy, rapid growth and/or the introduction of significant new products or management teams. These organizational factors can lead to major changes in organizational structures, communication links, power and authority relations, and organizational goals, strategies and tactics. Uncertainty may be experienced, or even disenfranchisement, because some responsibilities are seen as being diminished or subordinated to others. Transitions such as start-up and growth therefore produce a period of disorientation. Some *supervisory styles* such as bureaucratic (patriarchal) relationships, segmentalism, and authoritarian management styles, some kinds of *reward systems* and *job design* can have similar effects. It is also disempowering if organizations do not provide rewards that are valued by employees for employee competence, initiative and persistence in innovative job behavior.

An Example: Disempowerment of Employees in the Government of Canada

Beginning in the mid 1980s, along with several provinces, the Government of Canada adopted what

Evidence of Disempowerment Identified in the Gov't of Canada's Employee Survey

Half of employees felt their work suffered from fewer resources and did not feel they were classified fairly. 40-50% of staff felt their work suffered from constantly changing priorities and instability in the organization. 50% found their workload unreasonable. 20% of staff worked unpaid overtime in the past year, 35% felt that they could not claim overtime for hours worked, and that their work suffered from too many approval stages. 30% felt their work suffered from unreasonable deadlines. (Cont'd)

is known in Europe as the *new public management*, in the United States as *reinventing government*, and in the Canadian federal government as *the Canadian way* (Glor, 2001d). During the 1990s, this approach was reflected in two major initiatives. Program Review reduced staff and funding for government

Disempowerment in the Federal Employee Survey (cont'd)

Half of staff felt that they only sometimes or rarely/never had a say in decisions and actions that impact on their work and in how work gets distributed. 18% of staff had experienced discrimination and 20% harassment in their work unit. 35% felt they did not have opportunities to develop and apply the skills they needed to enhance their careers. 15% felt they did not have the initiative to develop the skills they needed to enhance their careers—a particularly impressive indicator of disempowerment.

35% felt they were not able to get on-the-job coaching to help them improve the way they did their work, nor a fair chance of getting a promotion, given their skills and experience. 57% would be reluctant to ask for a developmental opportunity and 17% had been denied developmental appointments in the last three years. 30% were not satisfied with their career in the public service. 50% of staff felt that senior management did not do a good job of sharing information and that management would not try to resolve concerns raised in the survey.

programs, transfers to individuals and transfers to other governments. Public Service Renewal hived off parts of the public service into special operating agencies (SOAs), alternate service delivery agencies (ASDs), and service agencies, facilitated reductions in financial and human resource management controls, budgets and staffing. It decentralized decision-making, empowered managers, and increased accountability of staff.

Reduced resources and new management models have created new challenges for employees. “The pressures of rapid change and economic restraint often led to poor morale among employees and reduced productivity” (Brisson, et. al., 1997). In addition, the public service is aging, due to high recruitment levels in the early 1970s, followed by low recruitment levels, recruitment at older ages, and limited student interest in public service employment until recently (Smith and Snider, 1998: 21-31).

At the same time as the size and scope of the public service declined, some government policies risked contributing to a sense of disempowerment on the part of public servants—policies

such as a seven-year salary freeze that created declining real incomes for public servants; the removal of \$25-30B from the public service pension fund, in combination with increases in employee contributions; and the adoption of a new employment relationship that removed an (implied) commitment to life-long employment and emphasized instead employees' responsibility for their own careers and futures. Likewise new forms of control—increased emphasis on accountability, responsibility, performance measures, and ethical codes of conduct—may have disempowered some staff.

One measure of empowerment is health. APEX, the Association of Professional Executives of the Government of Canada, surveyed senior executives of the federal government in the fall of 1997 concerning their health. Compared to Ontario residents generally, it found that executives of the government were sicker. Compared to other public servants, on the other hand, APEX members took considerably less sick leave: an average of 3.5 days per year compared to a government-wide average of eight days. Executives were more likely to see a doctor than the Ontario population, and a surprising number had been diagnosed with serious illnesses such as heart disease in the previous year. They were also experiencing high levels of psychological disorders. Higher level executives were healthier and lower-level executives were sicker.

Executives identified the following factors as contributing to these symptoms:

Psychological disorders

Lack of control
Workload
Role conflicts
Job insecurity
Skill under-utilization
Lack of supervisory support
Load variance
Intra-group conflicts

Physical disorders

Lack of control
Job insecurity
Role conflicts
Lack of supervisory support
Responsibility for others

The major contributor to both physical and psychological disorders was lack of control (APEX, 1998: 7). Job insecurity, role conflicts, and lack of supervisory support were also common to both types of illness.

Some of the findings of the Public Service Employee Survey of 1999 (a second survey was conducted in 2002, with similar results) may also reflect disempowerment as identified by Conger and Kanungo and Kanter. Many of the contextual factors contributing to disempowerment that Conger and Kanungo (1988) identified exist in the Government of Canada. The findings of the Public Service and APEX surveys confirm that the Government of Canada shows some signs of employee disempowerment. On the other hand, departments took initiatives in recent years to renew their work environment, including investments in employee learning and recognition. The public service leadership promoted and conducted the Employee Survey, has made the results publicly available, and has asked departments to develop and report on action plans to respond to issues raised by the survey. The government's actions thus mixed top-down and bottom-up

approaches.

In the Government of Canada the stage was set for responding to concerns and developing greater empowerment. To achieve empowerment, an empowerment strategy was needed.

How Can Employees Be Empowered to Innovate?

The problem for organizations and managers is that they suspect that innovations introduced by employees, especially those developed without prior approval, will have a disruptive influence and/or that employee participation will interfere with management prerogatives. Yet the research reviewed in

chapter 3 indicated that participant control produces designs and redesigns of the workplace that are in harmony with the larger organization, and research reviewed below suggests that in most cases workplace democracy increases efficiency and therefore productivity.

If an organization wanted to encourage employees to innovate, how could they go about it? Quality programs as they were originally conceived (rather than as a downsizing mechanism, as they have been employed many times in recent years) did exactly that. Sufficient has been written on quality programs by others (Deming, Juran, Eimicke). Here I will concentrate on what it is that happens in these programs. We are back to employee empowerment.

Conflicting Perspectives on Employee Empowerment:

- Managers fear it will be disruptive and interfere with management prerogatives.
- Participants see it creating harmony.

Employee Motivation to Innovate

The employee's perspective on innovation has not been considered a great deal. Kirton (1984) suggested that innovators and adaptors, those who push for change and those who maintain the current organization, the status quo, have different personalities. He seemed to imply that organizations change either by changing the value in which people are held, or by changing the mix of people in the organization. Fundamental to the capacity of an employee to value change, to change herself, and to create new processes, policies and programs (to innovate) is a sense of trust, empowerment and actual power.

Empowerment of employees has been promoted as a superior management approach in government for the past thirty years. This concept has come under the rubric of delegation, employee empowerment, self-control, self-efficacy (Bandura, 1997) and sense of coherence (Antonovsky, 1987) as well as workplace democracy (Nightingale, 1982), empowering participation (Elden, 1986), participatory management, and quality improvement. Despite periodic efforts to increase employee empowerment, the environment in most workplaces does not seem to be empowered. In the government of Canada, for example, in recent surveys staff did not feel managers are interested in them or their careers (Duxbury, 1999), half of staff felt overworked (Government of Canada, 1999), and executives became ill because of lack of control (APEX, 1998).

Fundamental to this problem is a lack of power. Nightingale (1982: 36-55) identified six approaches to workplace authority over time: (1) the early factory system, (2) the rise of

bureaucracy, (3) scientific management, (4) human relations, (5) human resources, (6) workplace democracy. These management systems are ranked from less to more employee power.

Three Examples of Employee Empowerment

Let's consider three practical examples of empowerment, one each from the public, the non-government organization (NGO), and the private sectors: the Government of Canada, the Grameen Bank of Bangladesh, and Semco Corporation of Brazil.

Employee Empowerment from the Public Sector: The Government of Canada

As described earlier, the Government of Canada may have done some things to disempower staff. But it has also made some efforts to empower staff in the last few years. Empowerment of staff was identified as a priority in the Government of Canada as part of PS 2000 (Human Resources Development Council, 1992) and again as part of the Quality Initiative (TBS, 1995). Central agencies directed public service managers to develop innovation as a core competency, to empower staff and to create citizen-centred service delivery. These policies could be expected to empower staff.

Other factors could also improve employees' sense of satisfaction. A small salary increase in 1998-99 kept up with inflation, and several groups of women in the government received a pay equity reimbursement, based on a court case. Executives of the government received substantial increases in 2000 and 2001, senior executives receiving much larger increases than junior executives. The Privy Council Office's emphasis on portfolio management and bigger spans of control for ministers, combined with horizontal approaches to issues, have increased ministers' and staff's capacity to address issues more comprehensively and thus more effectively. The Privy Council Office (PCO)'s focus on citizen engagement created the potential for increased empowerment of citizens—public servants' clients. Especially in health and education, some new funding has been made available for target groups that matter to employees. Typically, programs and tools that enhance the effectiveness of programs also empower the public servants who develop and run them.

The Government of Canada has made some efforts to do positive things *for* staff. Substantial efforts and resources have been expended in providing better access to information through electronic systems, although staff have been exhorted not to use the email system for private correspondence, which could be individually empowering. Employee recognition programs have been introduced: While there were initial indications that employees working close to senior management were receiving the most recognition, recent efforts to recognize long-term, front-line and regional employees more effectively have balanced this effort somewhat. Training opportunities are available, although finding time is a problem and the implication that this is fulfilment of the totality of the employer's responsibilities gives the training a somewhat negative tone.

How many of these actions are actually empowering for staff is not known. Better access to information, better communication, more training and technical support, and flexible work arrangements should give staff better tools. Pay increases, performance pay and formal recognition are controversial ways to acknowledge staff, as competitiveness or resentment can develop in the workplace as a result (Grady, 1992). Few of these top-down actions are contributing indisputably to staff achieving a feeling of empowerment. The government has also, however, sought feedback from its staff, a bottom-up approach.

Like the US government, in the spring of 1999 the Treasury Board of Canada surveyed all employees of the federal public service. Conducted by Statistics Canada, the survey was distributed to more than 190,000 public servants, of whom 104,416 returned a survey, a response rate of 54 per cent. A number of policies seemed empowering, and staff indicated some ways in which they felt empowered in the Employee Survey.

Empowerment Reflected in the Federal Public Service Survey

Among federal government employees, more than 90 % believed their work was important, that their immediate supervisor allowed them to determine how to do their work, and that they were treated with respect. 70-80% felt their immediate supervisors kept them informed about the issues affecting their work, that they could disagree with their immediate supervisor on work-related issues without fear of reprisal, that suggestions for improvement would be taken seriously, and that they had the flexibility to adapt their services to meet their client's needs. 60% indicated that their work unit was open to new ideas about how they could improve the way they worked, that their unit periodically took time to rethink the way it did business, and that they could clearly explain to others the direction of the department.

How Does the Grameen Bank Operate?

- It does not seek to provide an integrated package of poverty alleviation services. It provides small scale credit directly to the poorest people.
- Members must first participate in training and learn the Bank rules and the Sixteen Decisions (see page boxes).
- Once all members demonstrate their knowledge, the group is recognized, and attendance and participation in weekly centre meetings is observed for a month.
- Then loans may be extended to two of the five group members.
- If these two members repay weekly for two months, two more members may become borrowers. The chair is the last to borrow.
- Field operations focus on forming groups and initiating the loan process.
- The centres meet weekly in the village with their Bank Assistant. Here are made weekly repayments, deposits to savings accounts, discuss new loan requests. The six groups sit in their groups of five at the centre meetings.
- The group is the guarantor of the loan. If a member is in default, no other members can get loans. Other members of the group, and sometimes of the centre, work out solutions so that repayment is made. The Bank Assistant may or may not be involved in this problem solving.
- All business is carried on openly.
- Each group elects a chair and secretary. The centre elects a chief and deputy chief. These officers serve for one year and may not be re-elected until all eligible others have served.
- All basic banking and other activities are carried out through groups and centres by the Bank Assistants and by the Bank members (clients).
- Bank assistants are supervised by Branch Bank Managers who are supervised by Area Managers, who report to Zone Managers who report to the three senior executives of the company (four levels of supervision).
- Policy direction is provided by a Board of Directors.

At about the same time, and based on some of the feedback from the Survey, the Government of Canada established The Leadership Network as part of its initiative for public service renewal. Its mandate is to provide high quality services in the field of network development for leaders at all levels of the public service, including the collective management of Assistant Deputy Ministers.

An Example of Employee Empowerment in the Non-Government Organization (NGO) Sector

The Grameen Bank is the largest non-government agency in Bangladesh. The vision and values are clearly stated, with a dual purpose of being a commercially viable bank, and being a poverty alleviation organization. The Bank believes: (1) Experimentation and learning are the best ways of solving problems and serving organizational goals. (2) In openness, questioning, consultation, willingness to acknowledge mistakes, and a belief in the abilities of staff. (3) In discipline and accountability.

The Bank originated in a participatory research project (see box). By 1991 it had become

less organic, with a fixed model of lending and saving, and a staff of 14,000 in 1000 locations. The Special Programs unit ran the social mobilization activities; the Research and Development unit was responsible for studies, innovation, development and experimentation. The Technical Department managed new enterprises, Deep Tube Wells, fish ponds and shrimp farms in which the Bank and sometimes donors had invested. Yunus was the Managing Director. The Bank operated as both a bank and a poverty alleviation agency.

It has attempted to structure itself to empower staff. Area managers of the Bank do not talk about a learning approach, they speak of the opportunities and even the necessity for attempting creative solutions to the problems they encounter. Grameen leadership espouses, and seems to practice, a belief that learning or technical transfer is most effective when experience-based and when *staff participate* in the trial, error and learning. Thus when the Bank took over eight hundred fish farms, it did not begin by hiring technical experts; rather, the staff developed the expertise, partly by trying it out on a small scale just as the Bank had been developed through experimentation. The Grameen Bank refused funding from the World Bank because of this approach. Professor Yunus said “We love to make mistakes and correct them” (Holcombe, 1995: 72).

At the same time as being open to experimentation and problem-solving, the staff are valued. At all levels of the organization, positive references to the ability and capacity of the employees to do the job are heard. Part of the in-service training for Branch Managers includes a course in listening skills. The learning process, openness, consultation and teamwork espoused and practised by the leadership promotes participation and empowerment. They also accept responsibility and accountability, as measured by changes in the condition of poor people.

The key aspect of managing to empower is practising what is preached. In the Bangladeshi context, where the primary values are fatalism, hierarchy and the subservient role of women, this has meant a culture change. Although well educated, the Bank employs a work force that is primarily of rural background (82%). As a result, traditional values are strong, and a major change is required to achieve a culture of experimentation, openness and discipline. The Bank has taken

Managing Grameen Bank to Empower Staff

- Staff have an attitude of willingness to try new approaches
- Grameen is structured so that new and experimental activities are separated from management of the basic task. The core banking work is delegated: Local units operate banking services autonomously. Responsibility is diffused and decentralized.
- Area managers learn from each other
- Staff take unconventional steps to help e.g. when cows became ill, arranging vaccinations, and training a member of a centre to give the vaccinations; teaching fire prevention during a dry season; instituting birth registers and family planning classes; a new type of loan for latrines; loans to poor children
- Managers are interested in experimenting with or adapting procedures
- Staff write to the Managing Director with new ideas. He is known for his willingness to look at new ideas.
- Field staff write to the Bank newsletter with new ideas

Holcombe, 1995

some steps to empower its own staff (see box). Although experimentation is limited to working within standard operations, positive attitudes to change, and a belief that subordinates can express ideas and influence changes exists within the Grameen culture. Willingness to learn is associated with openness to acknowledging problems and adapting actions to what was learned. Consider how the Grameen Bank dealt with a case of corruption.

When the Bank took over 216 deep tube wells, an example of corruption among Grameen staff and landlords was discovered. This was particularly disturbing, since it was a break with the Bank's record of staff integrity. Senior management was the first to hear about it. They learned from and acted on it, asking the area managers to supervise the wells more actively. Area managers, when interviewed, indicated they were visiting wells more, and providing training in supervising the collection of shares from landowners at harvest time. A move to introduce a union was challenging to the Bank, whose staff worked unconventional hours. The issues were raised with the staff by the managers, and a workers' association was suggested instead.

Management practices to empower included listening and recognition, and giving special attention to actions that break down hierarchical relationships and promote equal interchange at different levels. The most successful managers built this into their schedules, and took special action to assure the participation of women staff or quiet staff. A common practice is for subordinates to submit written, anonymous questions before a meeting or workshop with superiors, which are answered at the meeting. Support to subordinates and clients was evidenced by willingness to help solve problems. When confronted with problem performance, most managers tried to guide rather than blame, although not all managers were able to follow the new role models. The Bank has not been able to attract large numbers of women staff, and has not set targets, as it did with women clients.

Motivation is created and sustained in three basic ways. First, there is no or very little corruption, in a society where it is considered commonplace. The Bank has autonomous internal systems for identifying irregularities and corruption. Second, staff stay with the Bank for long periods of time, despite the likelihood that they could earn more elsewhere, through bribery. Third, the Bank does experiential or

Criticisms of the Grameen Bank

- Bank may not be able to recover its costs sustainably— may be dependent on foreign aid. Objective is to be independent.
- Questions about whether accessible credit is the best answer to poverty, or whether reform in property rights, limited liability and easy licensing might be more helpful
- The microenterprises funded may not be able to sustain themselves. Most enterprises are low tech (e.g. cow fattening or milking), so the rate of return is low
- Bank has potentially conflicting goals—commercial profitability, combined with long-term poverty alleviation.

Holcombe, 1995

- Although loans are made to women, men are often the recipients of and control the money
- Increase in violence against women who are recipients of loans
- Assertions that neither local bank workers nor women are empowered.
- Evidence is from one village only.

Rahman, 1999

practice-based induction training. The requirements are a master's degree for officers and a higher secondary certificate for non-officers. The Bank prefers that employees not have been employed elsewhere, so that they will not have learned bad habits, especially around corruption, and the maximum recruiting age is 27. The specific techniques for managing motivation are formal reward mechanisms; a leadership invested in symbols, communication and organizational mythology; officers that articulate greater altruism than non-officers; and open transactions and supportive supervision combined with formal procedures for identifying and punishing corruption. (Holcombe, 1995, chapter 6)

An Example of Employee and Owner Empowerment from the Private Sector

Innovative Practices at Semco

- All memos limited to a single page
- Job rotation, esp. for managers
- Management by wandering around.
- Perks and privileges of executives stripped away.
- A nucleus of technological innovation created: a small group of employees, mostly engineers, assigned to invent new products, refine old ones, devise market strategies, unearth potential efficiencies, dream up new lines of business.
- About one third of employees have the option of taking a pay cut of 25%, then receiving a supplement of 150% of salary in good years.
- As few rules as possible
- Factory and office workers help survey salaries in other companies
- Instead of contracting outside, help employees set up businesses.

Source: Semler, 1993, Appen. D

Semco is a Brazilian company that manufactures large equipment—pumps that empty oil tankers, large dishwashers, cooling units for building air conditioners and entire cookie factories. Managed by its founder in a traditional manner for many years, it was slipping into the red when the founder's son joined the company. As Ricardo Semler took charge, he decided to turn the company upside down, working primarily on the basis of belief and trial-and-error. Some of the innovative practices introduced are outlined in the box. Semco's corporate strategy supports its

objective of empowering staff (see box).
Semco's empowerment strategy is outlined in
the box. Large

Semco's Corporate Strategy

- Units not allowed to grow beyond about 150 people.
- Company supports unionization.
- Strikes: don't keep records of who came to work and who led the walkout, never call police, maintain all benefits, don't fire anyone during or after a strike
- Eliminated all support staff positions.
- Training offered when requested; no formal training programs.
- Transparency to public.
- Courses to teach workers to read financial documents.
- Working at home encouraged.
- Taking of holidays encouraged.
- No office walls, only plants.
- Manufacturing cells instead of assembly lines.
- Often factory workers set production quotas and develop improvements for products. Sometimes they purchase materials on their own.

Source: Semler, 1993, Appendix D

corporations have shown interest in Semco's model, such as IBM, Kodak, Ford, General Motors, Pirelli, Bayer, Nestle, Goodyear, Firestone, Siemens, Chase Manhattan, Mercedes-Benz and Yashica.

Evaluation of the Examples of Employee Empowerment

Three examples of employee empowerment were presented in detail—the Government of Canada, the Grameen Bank, and Semco Corporation. What can we say about their success?

The Government of Canada. The Government of Canada conducted an employee survey, leaving reaction to the findings and solving of problems identified largely to individual departments. There were indeed some changes at this level, such as Health Canada's workplace health efforts. At the same time, there were ongoing efforts to decentralize responsibility for operating policies, such as travel. One isolated pilot project gave control to the employee over a pre-defined amount of training dollars per employee. Renewed emphasis was placed on creating annual work plans and learning plans. The Government of Canada does not have a formal employee empowerment program, however, nor has it made commitment to workplace democracy. The Head of the Public Service (Mel Cappe) expressed the intention to empower employees, but he was replaced within a short time after making the statement. The Government conducted a second Public Service Survey in 2002 that showed slightly improved results, but no major changes.

The Grameen Bank. Susan Holcombe (1995) conducted a careful, third-party evaluation of the Grameen Bank, with an emphasis on its client empowerment practices. The results of her evaluation, in terms of both process and outcome indicators, are shown in the boxes. The Bank empowered both clients and employees, but employees to a lesser extent than clients. It was in the process of fulfilling its vision and mission, and has become a model for other development programs, such as Bangladesh's agricultural credit programs.

Results of Client Empowerment at the Grameen Bank—#1

Process Indicators:

- The repayment rate is phenomenal: more than 98%
- The Bank reaches 10 million poor rural households and operates in one third of the villages in Bangladesh
- Average loan size is \$60-70US and makes a measurable improvement in income and assets of the borrower-members.
- 91% of borrower members are women
- Initial investments were primarily in agricultural and non-agricultural production; after 3 years in social investment e.g. education

Source: Holcombe, 1995

Results of Client Empowerment at the Grameen Bank—#2

Outcome Indicators:

- Household incomes 43% higher than target group households in control villages and 28% higher than those of non-participants in Grameen villages.
- Biggest increases were in non-agricultural pursuits
- Increases greatest for absolutely landless and marginal landowners
- Recipients, especially women, generated new production or employment
- Participants were able to accumulate capital. Working capital increased 64% per year.
- Increases in cattle ownership, agricultural or non-agricultural production, education, sanitation, housing
- Increased house ownership. All housing loans go to women, because this has proven to produce the best results.
- Members were protected from impoverishing debt by having assets available when they faced disasters
- Average daily wage rates increased
- Women's status and assets increased.

Source: Holcombe, 1995

- Increased verbal and physical aggression from male relatives after women took out loans. (Rahman, 1998; Goetz and Gupta, 1996).

Semco Corporation. The book describing Semco Corporation (Semler, 1993) emphasized employee empowerment, in contrast to customer or investor empowerment. The corporation appeared to be very successful at empowering employees, using techniques such as elected employee committees and partial or entire employee control over strategy, operations, hiring and salaries. The book was written by the president of the firm, in a highly self-congratulatory style, however. The measures included empowering employee processes, company profitability and expansion. Semco was evaluated by a participant observer, not a third party. At the same time, a declining company has grown by forty times, and now has 3000 employees.

Comparing the Results of the Three Examples

A comparison of the empowering strategies used in the three examples of employee empowerment, and the results

Empowerment in Semco Corporation

- Few bosses: three layers only (were 12).
- Bureaucracy replaced with a circular organization.
- No corruption
- Representative democracy throughout the plant. Groups of workers elect representatives to serve on committees.
- An employee who meets 70% of a job's requirements gets it.
- Office and factory workers set their own hours.
- Professionals get sabbaticals
- Each year business is good, several young people from entry-level positions are set loose: no job description, no boss, no set responsibilities; they are free to roam and must work in at least 12 departments in

achieved, are outlined in Table 12. The Government of Canada's objectives were diverse. There were even in some cases contradictory activities, that is, both disempowering and empowering actions. Of the three examples, Semco seemed the most effective in empowering employees. While the Government of Canada articulated a commitment to employee empowerment, and greater delegation of responsibility and accountability occurred, it was not clear that employees felt more empowered. Semco Corporation, on the other hand, empowered staff in much more fundamental and effective ways. It placed a great deal of emphasis on empowerment, introducing in particular participatory empowerment strategies.

Table 12: Comparison of Employee Empowerment Techniques in Three Cases

Techniques Employed:	Employer		
	Gov't of Canada	Grameen Bank	Semco Corpn
Employee surveys	yes (3)	no	Don't know
Value employees	not usually	yes	yes
Encourage employee suggestions for improvements and act on them	sometimes	yes	yes
Build teams	not for normal work	yes	yes
Front-line employees have some control over budget	no	?	Yes
Consult employees on important issues	almost never	?	Always
Front-line employees have input to strategic decisions	almost never	?	Yes
Front-line employees have some control over strategic decisions	no	no	Sometimes
Front-line employees have input to operating decisions	sometimes	yes	Always

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Front-line employees have control over operating decisions	no	At front line.	Usually
Front-line employees' recommendations usually approved	no	often	usually
Front-line employees have input to salaries	Only through unions	no	1/4 of employees
Front-line employees have control over salaries			some
<i>Outcome with employees:</i>			
Employee layoffs?	Yes	No. More employees.	No. More employees.
Annual turnover		?	Approx. 0
# management layers	5	9	3
Management model	New public management + bureaucracy	Person-centred, mission-driven	Circular organization
Representative structures (workplace/organizational democracy)	Unions + occasional consultation on implementation of change, following making of major strategic decisions. No seniority.	Regular visits from and discussions with all levels of management. Employer-organized workers' association, no union.	Union + employee representative structures
Emphasis on representative workforce	Yes, esp. women earlier and minorities currently (visible minorities, aboriginal people, disabled)	Yes, esp. women, but minimal success. Lower proportion of women recruited, larger proportion weeded out in early years of employment	?

The Grameen Bank Environment

- Manages its external environment by maintaining informal communication with government, avoiding outright confrontation with rural elites and their interests, and relying on donors sensitive to the problems donor conditions can create.
- Is subject to external factors like relations with other power interests, political instability, and natural disasters to which Bangladesh is prone.
- Reaches the middle poor (70% of the population), perhaps not the most poor as effectively.
- Has two goals—to be a poverty alleviation organization and a commercially viable bank.

The three examples are also compared in Table 13, according to Nightingale's criteria for workplace democracy as outlined earlier. The Government of Canada was found to be at the lowest levels of workplace democracy in both terms (degree of power and issues subject to participation). Theirs could perhaps be described as a human relations approach to workplace authority. The Grameen Bank was at the middle levels in terms of empowerment of employees, and at the lowest levels in terms of issues subject to participation. Although Grameen employees had little power in relation to shop-floor issues and Bank policy, they had substantial control over decisions related to loans. Theirs could perhaps be described as a human resources approach to workplace authority. The Semco corporation was at the high levels of power and participation, although not at the very highest levels. Theirs could be described as a workplace democracy program, although using the term democracy for an imposed program is problematic.

Table 13: Comparison of Degree of Workplace Democracy in Three Cases

Scale Criteria (least to most)	Employer and Workplace Democracy Score		
	Govt of Canada	Grameen Bank	Semco Corpn
Degree of Power:			
1 Employees need not be informed about decisions made by management (except as necessary to conduct their work).	X		
2 Employees have the right to be informed after decisions are made.	?	?	?
3 Employees must be informed ex ante and given an opportunity to voice their opinions.			X
4 Employees are consulted informally before a decision is made.		X	
5 Employees must be consulted before a decision is made.			X
6 Employees participate informally with management in decision-making; management (through 'residual rights') and employees (through the collective agreement) retain the right of veto over some issues.			
7 Management and employees jointly make decisions; in some cases employee representatives have parity with shareholder and management interests; in others shareholder interests dominate.			X
8 Employees have the final say in decision-making.			
Issues Subject to Participation:			
<i>Shop-floor issues:</i>			
1 Determining unsafe working conditions	X	X	
2 Due process, grievance procedures	X		
3 Wages and benefits	X		
4 Seniority rights			

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5 Overtime, hours of work, holidays	X ⁴⁴		
6 Contracting out	X		
7 Bidding on jobs			X
8 Technological change			
9 Establishing piece rates, manning of machines, work standards			X
10 Establishing qualifications for jobs			X
11 Salary grades	X (through union)		X
12 Recruitment, selection, and training of new employees			X
13 Appointment of supervision			X
14 Purchase of machinery			X
<i>Policy Issues:</i>			
15 Wage and benefit policy	X (through union)		X
16 Disposition of profits and shares to capital and labor			X
17 Choice of products and markets			X
18 Investments			
19 Capitalization			
20 Reorganizations, mergers, acquisitions			

Criteria from Nightingale, 1982: 85-86.

How Can Staff Be Empowered? Models

Some of the examples of empowerment of employees that have been described so far were

⁴⁴ However, all overtime is not paid. The culture expects free overtime from professionals and, especially, executives.

not introduced as part of formal programs, but rather through commitment, trial and error. Formal programs typically emphasize one of three specific aspects of employee empowerment—the personality of the employee, the impact of the social environment (and the impact of the research methodology being used), or the participation process. The key point with *personality* is that there are individual differences in workers' interest in employee empowerment. These individual differences cluster primarily around weak desires for independence and strong desires for independence. When concerned with the social environment, both research methodologies and employer interest tend to vary with other *social* issues and liberalism-conservatism. The third issue, specific *participation processes* that are used, depend on the analysis of the problem made by the employer/champion or the employees/union. Different participation programs highlight different factors that contribute to empowerment—for example, the flow and use of important information (cognitive models), the satisfaction of workers' needs (affective models), and the recognition that participation will affect different employees differently (contingency models) (Cotton, 1993: 13-29). Social and participation approaches parallel the motivational and cultural determinants of innovation outlined in chapters 8, 9, and 10.

A number of formal models for creating greater empowerment are available. They emphasize the individual, the social environment, or employee participation. Cotton found seven types of models in the literature, that are outlined in the box. He explored the efficacy of seven

- Empowerment Models**
- Opportunity to discuss problems
 - Meeting participation and psychological needs (control over own behavior, task closure, positive relationships)
 - Participation
 - Participation on issues
 - Participative decision making
 - Joint decision making
 - Participative management
- Source: Cotton, 1993: 23

Results of Employee Empowerment at Semco

- A moribund company in 1981 was thriving in 1993 by refusing to squander their greatest resource, their people
- In his first book, Semler indicated that over 12 years, the company grew sixfold despite withering recessions, inflation, national economic policy; in his most recent book, Semler said 40-fold.
- Productivity has increased sevenfold
- Profits up fivefold.
- Periods up to 14 months when not one worker has left the company.
- Big backlog of job applications.
- Anecdotal evidence of employees having better family lives.

Source: Semler, 1993: 7; Semler, 2003.

programs of employee participation: quality of work life programs, quality circles, Scanlon Plans and other gainsharing plans, representative participation, job enrichment, self-directed work teams and employee ownership. The results of his research on individual empowerment techniques are reported later in this chapter, under Evaluation.

Individual Models of Empowerment

Individual models of empowerment focus on the individual, and the experience of feeling empowered. Among Cotton's models, an individual approach is taken in meeting participation and psychological needs, and in the opportunity to discuss problems.

Delegation Models. Delegation models often see empowerment as a result, a service-oriented synergy, that happens when the right mix of environmental factors, individual qualities and leadership are brought together. In the federal government of Canada's P.S. 2000 initiative, for example, empowerment was a new kind of responsibility, exercised within a framework of public stewardship and parliamentary accountability. "Empowered individuals and organizations are able: to accept responsibility for results; to 'connect' in a responsive way with clients and colleagues; to act with integrity and accountability; and to be innovative and find new ways to improve service." (Human Resources Development Council, 1992: 4) The P.S. 2000 Report urged employees to be more results-oriented, more responsive, more accountable, and more innovative. The conditions required to create this outcome were identified as a share in the organization's vision and plans, a clear understanding of public service accountability, shared ownership, appropriate organizational investment, respect for individual styles and differences, and a willingness starting at the top to try new ways of doing business. To a considerable extent, the paper looked at empowerment as delegation.

Self-Efficacy Models. If employees' sense of efficacy—the sense of the competence to deal with something—is not to suffer, jobs need to be designed to provide challenge, meaning and role clarity, and not role conflict and role overload. Conger and Kanungo (1988) argue that this should be the focal point for diagnosis and intervention in order to rectify the sense of powerlessness among employees. They have identified a five-stage process for increasing empowerment in an organization (Figure 1) (see box for description of the stages). These stages address the psychological state of empowerment, its antecedent conditions, and its behavioral consequences.

This would not be a one-time process, but a process to which an organization would return periodically, in order to identify and deal with disempowerment that has grown up in the organization. According to Conger and Kanungo, the early parts of the process have been implemented several times, but the other steps have not. It thus remains in part a theoretical model, not a tested one.

Formal employee empowerment programs typically emphasize the personality of the employee or the impact of the social environment or the participation process.

Intrinsic Motivation Models. Like the Conger and Kanungo model, the attempt to increase intrinsic motivation is a motivational approach (Spreitzer, 1996, based on Thomas and Velthouse (1990)). This model sees empowerment as increased intrinsic motivation, achieved in four ways: meaning (value of work goal or purpose), competence (self-efficacy), self-determination (autonomy in initiation and continuation of work), and impact (influence on work outcomes). (Menon, 2000)

Leadership Models. In the leadership model the emphasis is also on energizing employees. Leaders inspire subordinates to participate by creating an exciting vision for the future. Bennis and Nanus (1985), Block (1987), Burke (1986), Conger (1989) and Neilson (1986) are proponents of the leadership approach.

Among Nightingale's descriptions of authority in the workplace, the human relations model is the most individually oriented.

The Nature of the Models

The three types of empowerment models reviewed above—individual, motivational and participatory—are substantively different from each other and could be expected to produce dissimilar results.

Individual. Delegation models entrust employees with additional accountability and responsibilities and places additional expectations on them, often without giving them very much additional power or resources. If delegation is perceived as additional work without additional power, it would not likely result in employees developing an enhanced sense of power. While the National Quality Institute's Model is based on the excellent principle of seeking input from and acting on employees' concerns, its focus remains on management taking these initiatives and retaining control. Leaders who have power and already feel empowered may not change to become more inclusive. Likewise, models for generating self-efficacy, while speaking directly to self-empowerment issues, describe the process entirely from the perspective of the personal experience of the individual. The importance of creating and the role of employees in creating an empowered environment is not emphasized.

Motivational. The Healthy Workplace model requires that employee health and well-being be an integral and strategic part of the way an organization does business. It considers the social

Conger and Kanungo Process for Increasing Empowerment

Stage 1: Diagnose conditions within the organization that are responsible for feelings of powerlessness among subordinates, e.g. organizational factors, supervision, reward system, nature of job.

Stage 2: Use managerial strategies and techniques such as participative management, goal setting, feedback systems, modelling, contingent/competence-based reward and job enrichment.

Stage 3: Provide self-efficacy information to subordinates using four sources: enactive attainment, vicarious experience, verbal persuasion and emotional arousal and remove conditions listed under Stage 1.

Stage 4: Subordinates experience empowerment, producing strengthening of effort (performance expectancy) or increased belief in personal efficacy.

Stage 5: Behavior changes: subordinates initiate and persist more to accomplish task objectives.

Conger and Kanungo, 1988

environment in the workplace, but it does not address the power and choice issues. The Healthy Workplace model also does not speak directly to how to deal with social problems in the workplace. Recall what the Government of Canada's executives said was making them sick—lack of control, workload, job insecurity, role conflicts, lack of supervisory support, skill under-utilization, responsibility for others, load variance, intra-group conflicts—few of these issues involved the personal level. They described power relationships, a social environment, a way of doing things—a culture.

Participatory. Only the empowering participation model develops organizational strategies specifically to empower employees directly, and to address the unequal power that exists between management and employees in most workplaces. Quality initiatives, if conducted with a focus on employee empowerment rather than on cost cutting and process (namely, employee) control, could also have the potential to empower. If successful, the empowering participation and quality service models would appear to have the most potential for empowering employees. These will be discussed further in chapter 12.

In terms of our examples, the Government of Canada used the PS2000 model of delegation, an individual strategy; the Grameen Bank used elements of total quality and the Spreitzer model, a social model; and Semco Corporation combined leadership with empowering participation, at least partially a participative model. The other empowerment models reviewed also used several levels of intervention. The Conger and Kanungo, Spreitzer and leadership models worked with individuals through personal action, an individual approach. The Healthy Workplace model had social components, while the NQI and workplace democracy models emphasized empowering groups and individuals through group action and participation. So did Semco. What have formal evaluations of individually-focussed empowerment discovered?

Empowerment as Self-Actualization

Unlike the management literature, the psychological literature treats power, control and empowerment as being about motivation and/or expectations that are *internal to individuals*. All people are assumed to have a need for power, defined as an internal urge to influence and control other people. This more inclusive idea of a desire to control and cope with life events deals with issues of primary/secondary control, internal/external locus of control⁴⁵ and learned

helplessness. People's power needs are met when they perceive that they have power or when they believe they can adequately cope with events, situations and people, but are frustrated when they believe they are unable to cope with the physical and social demands of the *environment*. Power refers to an intrinsic need for self-determination and a belief in personal self-efficacy.

Power as Self-Actualization:

- Motivation
- Expectations
- Control and self-determination
- Coping with the environment

⁴⁵ Locus of control is related to intrinsic/extrinsic motivation and Kirton's dimension of adaptor-innovator.

In this conceptualization, power has its base within a person's motivational disposition. Management strategies that strengthen belief in self-determination or self-efficacy increase the sense of power, while strategies and techniques that weaken self-determination and self-efficacy increase feelings of powerlessness. Approached this way, to empower is *to enable*, and implies motivating through enhancing the sense of personal efficacy and creating *intrinsic motivation*. In the management literature definitions of empowerment as delegation and enabling self-actualization are often fused.

Enabling self-actualization implies creating conditions for heightened motivation for task accomplishment through the development of a strong sense of personal efficacy. Delegating or resource sharing is only one set of conditions among others that *may* empower or enable employees. The definition of empowerment as enablement of self-actualization used by Conger and Kanungo is

“A process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information.”
(Conger and Kanungo, 1988, p. 474)

Empowerment through a specific relationship and through self-actualization refers to relations with the other and the self. A third approach, explored in chapter 12, emphasizes a particular process.

Evaluation of the Results of Individual-Level Employee Empowerment

Little empirical work has been done on the issue of results of personal empowerment, so it is difficult to say what specific outcomes to expect. According to Conger and Kanungo (1988), who described individual self-efficacy as empowerment, the positive results that could be expected would include: (1) sense of powerlessness reduced, (2) sense of self-efficacy, (3) more initiation and persistence, (4) development of a self-efficacy expectation that effort will result in a desired level of performance, and a sense of personal mastery or a “can do” attitude, (5) development of an outcome expectation that performance will produce desired outcomes.

Some potential negative effects might include (1) overconfidence, misjudgments on the part of subordinates, (2) false confidence on the part of the organization, leading to persistence in weak tactics or strategic errors., (3) the expected benefits of empowerment will only be realized if employees experience empowerment. According to Sanjay Menon (2000), this requires three things: empowering acts and modification of structures; employee achievement of an empowered state; and desirable employee behaviors and outcomes such as satisfaction, involvement and organizational commitment. It is important to remember, as well, that some employees can feel empowered without empowerment initiatives.

Menon (1999, 2000) has developed a strategy for measuring empowerment from the perspective of the employee. According to Menon, an empowered employee is one who can say:

- “I have control over my work and work context.”
- “I have the personal competence to do my work.”
- “I am personally energized by the goals of the organization.”

Menon developed measures for three aspects of psychological empowerment from the perspective

of the individual employee. He suggested looking for:

- The act of granting power to the person(s) being empowered
- The process that leads to the experience of power
- The psychological state that manifests itself as cognitions that can be measured.

Menon suggested that nine questions could determine whether these outcomes have been achieved (Glor, 2001b). Such a pithy tool could be used at regular intervals to take the pulse of staff. Menon explored which questions identified the factors of goal internalization, perceived control, and perceived competence best.

Drawing on the empowering participation perspective, it can be determined whether employee-developed change occurred. This approach has two key elements: an employee-defined definition of the problem, and employee empowerment. Tool #18 suggests some ideas for identifying the problem from the employee perspective, and Tool #19 for improving employee empowerment.

While Menon's work represented one of very few evaluations of individual empowerment, some evaluations have been done of employee involvement, a more group-oriented concept. This is explored in the next chapter.

Structures for Empowerment. To maximize empowerment, working level employees must control and direct change and control resources to support innovation. This approach can also be expected to enhance health. According to Cotton's (1993) evaluations, the best *structure* for creating empowerment is self-directed teams. According to Cotton, the best *method* for creating employee empowerment is employee ownership, which is a form of employee control. Tool #20 identifies some strategies for creating employee ownership. A process evaluation could determine whether resources were put at the disposal and under the control of staff trying to deal with issues identified by them as important

Tool #18: Identify the Problem or Opportunity

From the employee's perspective:

(g) Is there a problem? Yes " No "
What is it? (Do not answer this question quickly) _____

(h) What is the objective of your organization in making this change?

(i) Is this an opportunity? Yes " No "

(j) What is it? _____

(k) Is there room for individual initiative and a non-linear approach to this issue?
Yes " No " How?

(l) What could be the objective of your organization in making this change?

(m) What is the basis of power in this situation? _____

(n) Where is there potential for empowerment? _____

Tool #20: Create Employee Ownership

37. Do you have:
- (a) A stock option program or other financial reward program Yes " No "
 - (b) Employee control over resources to do the job, including their own time Yes " No "
 - (c) Participation with power Yes " No "
 - (d) Resources in the hands of front-line staff to research and act on their ideas Yes " No "
 - (e) Employee participation in operational decisions Yes " No "
 - (f) Employee participation in policy decisions Yes " No "
 - (g) Employee participation in strategic decisions Yes " No "
 - (h) Employee participation in hiring, promotion decisions Yes " No "
 - (i) Employee participation in salary decisions Yes " No "

to their empowerment. Whether such tools had been created could be measured.

According to Nightingale (1982: 241), the most comprehensive *workplace democracy program*, at The Cox Group, consisted of board-level representation for employees, works councils (co-management committees) and self-directing work groups. Perhaps these could be set as the benchmarks. It was also a successful company, growing 60 per cent per year.

The risks are that management will merely adopt a delegation model and respond too narrowly to employee concerns, as the Government of Canada has done. An empowering organization needs to adopt one of the frameworks for empowerment or, possibly,

Tool #19: Empower Employees

Q. 38. Have you:

- (a) Implemented the recommendations of departmental employee committees Yes " No "
- (b) Introduced an employee empowerment program? Yes " No "
- (c) Adopted the Conger and Kanungo model Yes " No "
- (d) Adopted the Spreitzer model Yes " No "
- (e) An empowering leadership model Yes " No "
- (f) A delegation model Yes " No "
- (g) A Healthy Workplace Program
- (h) A total quality program Yes " No "
- (i) An empowering participation–workplace democracy model Yes " No "
- (j) Adopted other specific strategies for empowering employees Yes " No "

Explain: _____

- (k) Addressed the unequal power that exists between management and employees in most workplaces Yes " No "
- (l) Facilitated and served the self-efficacy (self/intrinsic motivation) of employees Yes " No "
- (m) Enhanced the development of self-efficacy and empowered participation Yes " No "
- (n) Asked staff what would empower them Yes " No "
- (o) Acted on difficulties and problems in the workplace that affected individuals and their health e.g. overwork, lack of control Yes " No "
- (p) Provided training for empowerment Yes " No "
- (q) Involved unions Yes " No "

elements from several of the models for empowerment. A few of these ideas are responsive, others inclusive, still others active.

Introduction of a system for providing mature advice or a system of risk management might be able to help deal with potential problems. Better still would be a willingness on the part of senior managers, ministers and cabinets, boards of directors, investors, and eventually the media, Opposition and public to treat empowerment as a learning experience that sometimes produces errors but whose impact if positive is worth the benefits to staff, department and clients/citizens.

Each of these approaches uses a binary approach to measuring empowerment and disempowerment—staff are asked to indicate either yes or no, without any variations. Unexplored in this approach is whether there are variations in empowerment and disempowerment and whether some acts and approaches are more/less empowering and disempowering than others. Is it necessarily disempowering, for example, to cut back resources in an environment of scarcity? Perhaps, in their role as citizens, employees can see the need, even if it is potentially harmful to them or those around them. Are cut-backs as disempowering as the other options, that debilitate organizations? Are all things disempowering that are perceived by employees as negative, or only those related to contextual factors that lower self-efficacy beliefs—organizational factors, supervisory style, reward systems and job design and accountability without responsibility, as identified above? Answers to multiple questions allow for identification of gradations within the experience of the individual.

Conclusion

Introducing public service employee surveys, departmental reports, continuous learning, staff control, critical action learning, and effective consultation creates opportunity. New initiatives present an occasion to empower staff and clients of governments and to deal with the results (including poor health and even death) created by disempowerment. To empower staff requires addressing specific issues raised by staff, delegation of authority and resources, creation of processes and resources under the control of employees, and feedback processes. Such a package of changes can create both personal self-efficacy and social improvements. Only workplace democracy can create empowering participation.

Senior managers, middle managers and front line staff need to pay attention to improving the work environment in departments and need to consider a broad range of political and ethical options. Such broad-based actions on issues and problems have much more potential than top-down strategies to deal with problems, dysfunctional relationships and processes. They thus might successfully change patterns and cultures. If managers and front-line employees both worked in empowering ways, this would create the conditions that permit innovation. Empowerment has the potential to create systemic change in organizations, and create continuous innovation. Employees and management would have motivation to innovate, a reduced sense of the challenge involved in innovation, and a culture that supported the people working within it, the work of the organization, and innovation.

Chapter 12: Group Empowerment in the Workplace

Introduction

Just as chapter 11 was devoted to examining individual models of empowerment, chapter 12 addresses the group process of empowerment, the “culture” of empowerment. Some authors suggest (Burke, 2002; Glor, 2001) that successful organizational change and innovation is not only about individuals (leaders, individual workers) taking action but also about groups taking action, creating new ideas, and cooperating to create change. If this is the case, then the group is an important actor in innovation.

Earlier in this book, we considered the group acting together as organizational culture. The term organizational culture is a third-party term, just as employees, personnel, human resources and staff are third-party terms. They imply that the impact of the group is passive at worst, responsive at best.

Chapter 12 is devoted to examination of two ways in which the group can be and often is active in relation to innovation. Rather than considering specific types of groups, such as teams, it explores two quite different perspectives on groups: the role of the group in creativity and the empowerment of workers (note this is an active term) as a group. Chapter 13 examines clients/customers and stakeholders/citizens as active participants in the innovation process, through empowerment.

Most of the discussion of employee empowerment in chapter 11 was silent on the topic of the value of group creativity. It is not simply a question of whether group creativity is superior to individual creativity (sometimes, it is not), but rather that group creativity offers a method for integrating the individual and the group in an organization. Just as individual creativity was discussed in chapter 3, and individual empowerment in chapter 11, in chapter 12 we examine group creativity and the effects of different types of group empowerment as identified in evaluations.

Group Creativity is Complex

The heart of the matter is that group creativity may not be the sum of the individuals' creativity within the group. Rather, creativity may be a complex activity. According to Theresa Amabile, creative behavior is mediated through the group and is influenced by the group's composition, characteristics and processes, as well as the context of the larger organization, the society, and the ideas being used. In short, the group, society and idea mediates individual behavior, which ultimately affects organizational creativity (Amabile, 1998: 304).

Several authors have examined the effect of the relationship among individuals in the workplace on creativity and employee empowerment. Amabile produced the most empirical

Group Techniques for Developing and Retaining New Ideas

- (1) Changing workplace relationships
- (2) Leadership
- (3) Organizational knowledge creation and continuous innovation
- (4) Futures techniques.

research, exploring both personal characteristics and the interaction among people in the work environment. Leadership is also a determining factor in how the organizational-individual interface occurs. The Japanese approach to the conversion of knowledge from personal, tacit forms into explicit forms, permits this knowledge to be accessed by a wider group of people, including the employer. This individual-organizational interface is where knowledge is created, and is part of what knowledge management is about. An organization that regularly uses futures study techniques creates the possibility for itself of choice and intentional change and creation. Here we consider four group/organizational techniques for developing and retaining new ideas (see box).

Environments that inhibited creativity

were (various) organizational characteristics, constraint, organizational disinterest, poor project management, evaluation, insufficient resources, a corporate climate marked by a lack of co-operation across divisions and levels and overemphasis on the status quo.

What promotes creativity? Theresa Amabile (1988) identified the factors that promote problem solving or personal creativity. Although one factor, *qualities of the group*, assisted personal creativity, other group factors were not shown to do so. *Social environments* were found to be more important (see box). Two factors sometimes described as innovation motivators were found not to be - constraint and competition. (Amabile, 1998: 147-148).

One notable aspect of these responses about environments was how much more important the innovators found the social factors to be than the personal characteristics. The highest portion of innovators choosing any single personal characteristic was 41%, while the top five of the group characteristics, all received a higher rating. There was therefore greater consensus about social factors than individual characteristics. Another striking element was how many of the group factors could be influenced by management and how few by the innovators themselves. Management usually determines the organizational characteristics, sets the tone for the corporate climate, and determines whether or not the organization is interested in innovation. It also controls whether there are competent project management, evaluation, sufficient resources, and an emphasis on the status quo, constraint and competition.

The Effect of Workplace Relationships and the Workplace Environment on Creativity

Social environments that encouraged creativity

exhibited freedom (74%), good project management (65%), and sufficient resources (52%). A half to a third of the innovators identified the need for encouragement (47%), specific organizational characteristics (42%), recognition (35%) and sufficient time (33%), whereas only 22% identified the need for challenge (22%) and pressure (12%). They felt that organizations required "a mechanism for considering new ideas, a corporate climate marked by co-operation and collaboration across levels and divisions, and an atmosphere where innovation is prized and failure is not fatal" Amabile, 1998: 147.

While Amabile studied the characteristics of individuals and environments contributing to and interfering with individual and organizational creativity, Brown (1989) and Harrington (1990) understood organizational creativity as a combination of the creative process, creative product, creative person, creative situation, and how these components interacted together (Woodman *et. al.*, 1993: 294). It is notable that the manager and employees trying to encourage innovation cannot affect the past, cognitive style, ability or personality of employees but can influence knowledge, motivation, and social and contextual influences. What the manager could conceivably do is choose employees with certain historical, cognitive, ability and personality profiles. A homogeneous and exclusionary work force could thereby be created, however, thus losing the potential benefits of diversity.

"Individual creativity is a function of antecedent conditions (e.g. past reinforcement history, biographical variables), cognitive style and ability (divergent thinking, ideational fluency), personality factors (self-esteem, locus of control), relevant knowledge, motivation, social influences (social facilitation, social rewards), and contextual influences (physical environment, task and time constraints)" Woodman *et. al.*, 1993: 294, 296.

Amabile focussed on personal and social environmental traits, Brown and Harrington on the creative process combining the product, person and situation. Like Amabile, King and Anderson (1990) explored work group characteristics. They described the conditions of group creativity as leadership (especially when democratic and collaborative), cohesiveness, group longevity, group composition, group structure (organic rather than mechanistic), and membership from diverse fields or functional backgrounds. Group cohesiveness and longevity seem important group characteristics, but their relationship to creativity is not totally clear. Nystrom suggested that there may be a curvilinear relationship between group cohesiveness and creative performance (Nystrom, 1979). Examining research teams, Payne (1990) came to similar conclusions, identifying the key role of "...resource availability, leadership, group size, cohesiveness, communication patterns, and group diversity as crucial factors in creative performance" (Woodman *et. al.*, 1993: 302). If King and Anderson and Payne are correct, then the recruiting strategies that would seem to flow out of Amabile, Brown and Harrington's work, where managers would attempt to find "creative" staff (see below), might in fact be destructive of innovation. Employee empowerment is clearly a key component here.

Leadership

According to Amabile, creativity appears to be related to motivation. She (1988: 142-3) showed that the intrinsically motivated person is more creative than someone who is extrinsically motivated. If this is so, then hierarchical direction to innovate and top-down innovation, which induce extrinsic motivation to innovate, would presumably not produce very creative solutions. Because of the linkage between creativity and motivation, leadership is a key linkage between

Amabile's primary components for organizational innovation:

- motivation to innovate
- resources
- skills in innovation management

individual creativity or knowledge and organizational innovation. Amabile observed parallels between organizational innovation and individual innovation, identifying three primary components for organizational innovation. The first was motivation to innovate. Recognizing that leadership influenced motivation, she suggested leadership should come from the highest level, but that middle management could also be very important. The organization should communicate value is placed on innovation in general and have a willingness to risk rather than an orientation towards maintaining the status quo; a sense of pride in the organization's members and what they are capable of doing; and an offensive strategy of taking the lead toward the future, not a defensive strategy of simply wanting to protect the organization's past position. (Amabile, 1998: 154). The second factor in organizational innovation is resources, including people with knowledge, funds and training. The final factor is skills in innovation management, including management skills, and relevant branch, division and project level skills. Management should be professional, balance freedom and constraint, and communicate openly (Amabile, 1998: 153-155).

Nonaka focussed on the individual-organizational interface as well. He saw middle management as the most important to innovation. Borins (2002) also discovered empirical evidence for the key role of middle management in the innovation cases he studied . The creation of new knowledge is a result of interaction among front-line staff, middle management and senior management. Most in touch with the technologies, products, or markets, front-line staff are the true experts, but turning the information they use into useful knowledge, for many reasons, can be a difficult task. The meaning of the information is continually shifting as it is transferred and diffused throughout the organization. Middle managers help to transfer information into useful knowledge by providing conceptual frameworks for employees (Nonaka, 1991: 102-103). Senior managers "give voice to a company's future by articulating metaphors, symbols, and concepts that orient the knowledge-creating activities of employees. They do this by asking the questions: What are we trying to learn? What do we need to know? Where should we be going? Who are we? If the job of front-line employees is to know 'what is,' then the job of senior executives is to know 'what ought to be.'" (Nonaka, 1991: 103). It is management's task to clear away any obstacles and prepare the ground for teams and self-organizing groups. Teams are an important part of innovation as they provide for interaction, conflict, critical thinking, reflection, and constant dialogue (Nonaka, 1991: 104). Middle management is key because it translates the tacit knowledge of front-line workers and senior executives into explicit knowledge and ultimately into new products and technologies. To this end, "...they are the true 'knowledge engineers' of the knowledge-creating company" (Nonaka, 1991: 104). The best settings for innovation are not top-down management nor bottom-up management, but middle-up-down management, where middle managers are at the very centre of knowledge management. They are the conduit between top management's vision and the reality of front-line workers, and provide the conceptual model (Nonaka, 1991: 124-129). Naturally, we might wonder how this could apply in the Westminster and presidential systems.

Nonaka and Hirotaka posit a "hypertext organization" in which three totally different contexts are coexisting within the same organization. The business layer is the middle layer, used for routine operations and is shaped like a pyramid with its tip at the middle management level. The project team layer is the top layer, where numerous teams engage in knowledge creation. Team members come from various units, and are assigned to a specific project team only until the project is complete. The knowledge-base layer is at the bottom, where organizational knowledge created in the other layers is recategorized and recontextualized. This layer does not exist organizationally, but is embedded in corporate vision, organizational culture or technology. (Nonaka, 1991: 166-167)

Dennis Grady (1992) also explored the role of managers in innovation, studying 190 supervisors and 160 innovators. They both identified the crucial roles of managers in innovation. In strengthening readiness, they created a supportive climate of risk-taking and lateral thinking within their organizations. Innovative managers supported "fast failures" rather than the classic public manager model of deliberative decision making, efficient use of public resources and adherence to standard operating procedures. In our terms, the gardeners pulled the weeds when they were young and easy to remove. In support of approval, managers viewed the organization as an open system connected to its political environment, built connections to external forces to foster support for the innovation as it emerged, and shared a view of the organizational environment with the innovative employee. Finally, managers rewarded innovation. Based on behaviorial theory, rewards are controversial, because they create a competitive environment. Like Grady, Wilson (1966) also saw executives as being crucial to innovation.

While supportive workplace relationships and leadership are important to creativity, so is a strategy for retaining and using new ideas.

Organizational Knowledge Creation and Continuous Innovation

To Nonaka the process of organizational knowledge creation is based on the conversion of tacit, personal knowledge to explicit, organizational knowledge. Continuous creation, in turn, makes persistent innovation possible.

The Spaghetti Organization

The Minister and the Ministry of Trade and Industry in Denmark changed its organizational model from a traditional hierarchy into a project organization, based on the the "spaghetti organization" introduced by a Danish company called Oticon. The change was supported by a 1½ year change process. While the purposes of introducing the new model were realized, the implementers also concluded that no organizational model is ideal. Rather, to keep your organization fit you constantly have to improve it based on a dialogue with employees and an understanding of the needs of customers.

Source: Kjolby, 2002.

Managing the Knowledge-Creating Organization

- Redundancy
- Frequent communication and dialogue
- Strategic rotation
- Free access to information
- Ambiguity

A Gardener Innovator's Guide to Innovating in Organizations

From the organizational perspective, the key aspect of intrinsic motivation is that the individual is willing to make personal knowledge available to the organization. What can be done to support and enhance that willingness to access tacit knowledge? One approach is to value the contribution of employees, clients and the public, and to consult with them, in order to access their ideas. This is a key aspect of the quality movement and an approach used in formulating many innovations as well. Another approach is that used in many innovative Japanese companies, where management and teams are oriented toward working with staff to access personal knowledge. Ikujiro Nonaka and Hirotaka Takeuchi have explored the process which occurs interior to creativity. According to Nonaka, appointed the first professor of knowledge at Stanford University in 1996, "Making personal knowledge available to others is the central activity of the knowledge-creating company" (Nonaka, 1991: 98). Most important is the recognition that creating new knowledge does not simply mean processing information, but "...tapping the tacit and often highly subjective insights, intuitions, and hunches of individual employees and making those insights available for testing and use by the company as whole" (Nonaka, 1991: 97) To do this employees must feel a personal commitment and bond with the company and its mission. Nonaka sees this as the organizational equivalent of self-knowledge, a shared sense of "what the company stands for, where it is going, what kind of world it wants to live in, and most important, how to make that world a reality" (Nonaka, 1991: 97). This activity thus links personal motivation, values and ethics.

Nonaka described four basic patterns for creating knowledge (see box). In a knowledge-creating organization all four of these interchanges occur. The Japanese are particularly good at the interchange between tacit and explicit information, the critical step in knowledge creation (Nonaka, 1991: 99). The knowledge-creating process of converting tacit knowledge into explicit knowledge operates "first, by linking contradictory things and ideas through metaphor; then, by resolving these contradictions through analogy; and, finally, by crystallizing the created concepts and embodying them in a model, which makes the knowledge available to the rest of the company" (Nonaka, 1991: 101). In attempting to design a new and different car, for example, the responsible project leader in Honda's engineering team developed the slogan: "Theory of Automobile Evolution." The team addressed the question: "If the automobile were an organism, how should it evolve?" (Nonaka, 1991: 100) The use of an organic analogy forced the participants to reconcile the differences and similarities of the two ideas expressed in "car" and "evolution". In the creative context, then, managers must take more holistic approaches that include creating images, symbols and slogans. (Nonaka, 1991: 97)

The first step in managing the knowledge-creating company, and a key principle of organization design in Japanese companies is redundancy. Transfer of tacit knowledge is increased as a result of frequent communication and dialogue; strategic rotation, especially between different functions and technologies; and free access to information (Nonaka, 1991: 102). It is in the midst of

redundancy and ambiguity that new knowledge is created (Nonaka and Hiroataka, 1995: 12). Redundancy sounds synonymous to waste and duplication for Westerners, but it promotes dialogue and communication. When members of the organization share overlapping information (share a *common cognitive ground*) people can get a sense of what others in the organization are trying to articulate. While redundancy primarily involves information sharing, this explicit knowledge can then be internalized by employees (Nonaka and Hiroataka, 1995: 14). Redundancy is promoted by the management of "...product development as an overarching process in which different functional teams work together on a shared division of labor (Takeuchi and Nonaka, 1986). Another aspect of redundancy is revealed in many Japanese companies that take this process even further. They divide product development teams into competing subgroups, which develop different approaches to the same product, the advantages/disadvantages of each are then argued out, and a best approach is decided upon (Nonaka and Takeuchi, 1995: 14).

Japanese companies have been successful because they are experts at creating organizational knowledge: they create new knowledge, disseminate it, embody it in products, systems and services, and so innovate. They do this on a continual, incremental basis. It should be noted that this goes against the common view in the West that Japanese are only good at imitation and adaptation, that they are not very innovative (Nonaka and Takeuchi, 1995, p. 3).

According to Nonaka and Takeuchi, however, neither the Japanese nor Western models of knowledge creation, are best case scenarios; they both exhibit shortcomings. In Japan the conversion of tacit to explicit knowledge takes place primarily at the group level, but the Japanese tend to focus too much on the figurative and symbolic rather than on more documented, analytical approaches. The West, on the other hand, utilizes clear cut decisions and conversion from tacit to explicit knowledge occurs primarily at the individual level, focussing only on a few key people. Nonaka and Takeuchi illustrate the point by comparing the European and Japanese approaches to developing high-end automobiles. Western knowledge is explicit - it can often be processed by a computer, whereas Japanese knowledge is more tacit - difficult to process or transmit by computer. What is needed is an approach that integrates the merits of both methodologies (Nonaka and Takeuchi, 1995: 209, 210, 226).

Tacit knowledge is personal, difficult to formalize, subjective, intuitive, and rooted in one's actions and experiences, ideals, values and emotions. More specifically, tacit knowledge can be broken down into two components: a technical dimension involving informal skills or *know-how*, and a cognitive dimension consisting of "...schemata, mental models, beliefs, and perceptions so ingrained that we take them for granted. The cognitive dimension of tacit knowledge reflects our image of reality (what is) and our vision for the future (what ought to be)." (Nonaka and Takeuchi, 1995: 8).

Of course knowledge has to be shared to be useful; therefore, tacit knowledge must be

Successful Japanese Companies

- Create new knowledge
- Disseminate it
- Embody it in products, systems and services
- On a continual, incremental basis.

transformed into explicit knowledge, and eventually back into tacit knowledge - this is how organizational knowledge is created (Nonaka and Takeuchi, 1995: 9). The West believes that innovation is about putting together diverse data or information, but in Japan the employees' commitment to the company and its mission is what is important: "In this respect, the creation of new knowledge is as much about ideals as it is about ideas. The essence of innovation is to recreate the world, including the company and everyone in it, according to a particular ideal or vision." (Nonaka and Takeuchi, 1995: 10) We discussed the question of ethics in chapter 6.

Five organizational conditions to create the knowledge spiral:

- intention/ aspiration to create knowledge;
- autonomy of workers;
- fluctuation and creative chaos;
- redundancy;
- requisite variety - an organization's internal diversity must match the variety and complexity of the environment
Nonaka and Takeuchi, 1995, 74-83.

Nonaka and Hirotaka describe five conditions required at the organizational level to create the knowledge spiral (box). They conceive a five-phase model of the organizational knowledge-creation process: sharing tacit knowledge, creating concepts, justifying concepts, building an archetype, and cross-levelling of knowledge, where the new knowledge moves on to a new cycle of knowledge creation at both an intra-and inter-organizational level (Nonaka and Hirotaka, 1995: 90). While Nonaka and Hirotaka describe these factors as conditions, they can equally be thought of as processes. The North American and European literature describes the required processes differently.

Empowerment as a Process –To Enable Participation

Historically, the empowerment of employees has emphasized *participative management techniques*. According to Henry Mintzberg (1983), power is the ability to affect organizational outcomes. Employees could and should be empowered by decentralizing, flattening the hierarchy, and increasing participation (Kanter, 1977). Participative management techniques such as management by objectives, quality circles, and goal setting by subordinates should empower staff. In the management literature employee participation is sometimes equated with empowerment.

Power as Means and Opportunity:

- Participative management
- Empowering participation
- Participant control

The *empowering participation* movement took a somewhat different view of participation. This movement focussed on empowering people to change their own work situations. By empowering staff, organizations were expected to increase employees' autonomy, involvement and learning, and to use human resources more effectively (Elden, 1986, p. 241). The movement was strongest in Norway, where the concept had its origin in the notion of participatory research, an idea that also had a strong impact on social action.

Norwegian legislation outlawed alienating and dehumanizing labor in 1977. This was to be accomplished by improving social and psychological working conditions, sometimes called the

quality of working life (QWL). In a second stage, a 1982 agreement between the national employers' association and the Norwegian trade union confederation resolved to increase union-supported worker participation in management decision-making. This was supported by creation of company development funds to sustain participatory planning and employee-controlled work design or redesign. In a third stage an official government inquiry suggested means to further democratize the workplace, and led to legislation that placed workers on company boards. Empowering participation did not move beyond this stage.

The values behind these actions were those of autonomy in organizing tasks, cooperative labor-management change processes and humanistic-democratic values (Elden, 1986, p. 241). While delegation maintained the structure of but deepened power in the organization, thus supporting conservative values, and enabling self-actualization promoted humanistic values, empowering participation supported both humanistic and democratic values.

Elden distinguished empowerment through structure, for example the autonomous work unit, from empowerment as a process, wherein workers could study and change their own organizations. *Participation* was distinguished from *participant control*. Participation alone could empower *or* it could function as a powerful means of overcoming resistance and coopting people while the inquiry and change continued to be controlled by managers or consultants. In participant control employees are empowered to develop their own maps or *local theories* about their work places, which according to Elden have been shown to be more complex and sophisticated than the theories of either their managers or of external experts. Although workers normally lack the authority necessary to develop or act on local theory, when they have such authority they are able to design and redesign their own workplaces in harmony with the larger organization as a system. The model attempts to increase the power of the relatively powerless through worker-controlled development of knowledge including problem definition, collection and analysis of data, and use of the results of the research. The result should be worker-controlled inquiry and change (Elden, 1986, p. 247).

Elden offered some examples of empowering participation: Surgical nurses organizing to deal with overwork that was under the control of doctors in Denmark, a private-sector initiative in which workers changed their own organization and self-managed participatory learning in Germany, and a professor creating a self-managed course in organization and management in Australia. An aspect of the voluntary elimination of hierarchy in the course worth highlighting was the reluctance of about half of the students to participate. (Elden, 1986, pp. 248-250)

During the early 1980s, the government of Saskatchewan also introduced several elements of empowering participation – piloting of union representation on company boards, proposals for creation of Work Environment Boards, and worker-controlled workplace research funds. It also made research funds available to the worker representatives on joint labor-management occupational health and safety committees. Inequality of knowledge remained a problem, however (Sass, 1997). To my knowledge, this is as far as worker participation has gone in North America.

Today many organizations attempt to prepare employees for change through communication. From my own experience, I am not impressed. While communication sometimes passifies staff, it does not seem to produce a positive attitude to the future. Rather, cynicism is a more common result.

Empowerment is a different kind of approach. Support for change cannot be developed by considering only one aspect of innovation and one group affected by it. In a democracy, readiness must be achieved by the public-at-large, management, *and* employees of a public or private sector organization. Although delegation can have the effect of downloading managers' problems onto employees, if it involves enablement of employee self-actualization or participation, empowerment can help staff prepare for change and become more open to innovation—especially to innovation the need for which they have identified themselves.

One of the capacities that helps staff to identify and support needed innovations is a perspective that looks forward as well as backward at which was or might have been. Futures techniques have been developed to aid in looking forward.

Futures Techniques

Futures study is a field of its own, with some similar objectives to those of creativity. Whether the platonic, romantic, satirical and rollicking utopias of the 16th, 17th and 18th centuries, or the economic, political and social utopias of the 18th, 19th and 20th centuries, or the specific futures for specific countries of the 19th and 20th century nationalists, the capacity to image the future has been considered a core capacity in any culture (Polak, 1961). Some futurists have combined the desire to create visions of alternate futures with the realization that the capacity to invent futures grows and declines and could disappear (Polak, 1961).

Futurists have used such techniques as social planning, brainstorming, forecasting, living evolutionary networks, ecological futurism, and revolutionary futures. Among revolutionary futures alone there are political futures such as violent and non-violent liberation movements; non-political futures to be achieved through international organizations and

international movements for a peaceful, integrated world; and non-political movements creating communal working experiments based on openness to the unique creative qualities of individuals. To the extent these communes are intentional communities, developing working models of a desired future society, for the benefit of humankind, with a transcendent intent, they are using futurist techniques. Another revolutionary technique is science fiction. (Boulding, 1973: 89-93)

Professional forecasters can be divided into three types—technocrats, humanists, and participatory futurists (Waskow, 1970). Strong in both Europe and the USA, the technocratic futurists operate largely within the framework of the present, projecting present trends, distributions of power and resources, and assuming that present trends of technical development and scientific breakthroughs will continue. For these reasons, the technocratic futurists tend to represent a vote of approval for such trends, to have the effect of strengthening those trends, and thus to make them more likely to occur (Boulding, 1973: 83-4).

The humanist futurists are worried about

Futures study in particular, is challenged not only to invent social plans, blueprints and technical fixes; not only to extrapolate existing trends or predicted breakthroughs; but to imagine dynamic images of the future
E. Boulding, 1973.

Professional forecasters can be divided into three types—technocrats, humanists, and participatory futurists

this aspect of futures studies. They seek to ensure a future that is person-centered, democratically determined, and encourages personal involvement and choice in defining and realizing the future. It is a comprehensive, whole systems approach that encourages inter-communication and cooperation. The humanist futurists faced a great disappointment during the 20th century as it became evident that the great Soviet socialist experiment had turned from an utopia to a dystopia. Chief among the humanist futurists' concerns is envisioning ways to protect the common person's future by involving him in planning it and helping her to think creatively about longer time spans. Thus is created the potential for imagining futures distinctly different from the present and discontinuous with it. (Boulding, 1973: 84-5)

Participatory futurists emphasize the process by which visions of the futures are derived, rather than their content. This is similar to the distinction I used earlier between policy and administration. The participatory futurists criticize the authoritarianism of the technocrat and the fuzziness of the humanist futurists. They are committed to creative disorder and acting on the chosen futures by building pieces of them without permission, from the bottom up. Participatory futurists are thus action oriented and create community-building experiments with larger visions. The humanist and participatory futurists share a fear of the professionalization of futurism, as four-fifths of the work done in the specialty of futurism had been financed by governments, military, or large corporations by 1973 (Boulding, 1973: 85-6).

Increasing Ideation

Futurists have thus reflected the same debates and dimensions that innovation studies have. Ideologies and similar patterns are reflected in both fields.

There are clearly many ways to approach enhancing group ideation. In addition to the techniques identified above for enhancing group creativity, organizational creativity can be enhanced through the separation of solution generation and evaluation of solutions (Cummings and O'Connell, 1978; Basadur et al., 1982; Basadur et. al., 1986), risk taking, free exchange of ideas, legitimization of conflict, stimulation of participation, and reliance on intrinsic as opposed to extrinsic rewards. Woodman et al. inferred, however, that there was little empirical support for these conclusions, except for that provided by Amabile (1983), although "... correlation evidence with ratings of overall innovation has been provided by Paolillo and Brown (1978) and Abbey and Dickson (1983) (Woodman et al., 1993, p. 306). None of these authors evaluated the techniques discussed by Nonaka.

To the extent they work, these methods serve to increase the numbers of ideas available for consideration, and sometimes the range of ideas, and to empower front-line staff. What is the effect of employee empowerment at the group level?

Evaluations of the Results of Two Types of Group-Level Empowerment

In chapter 11 we discussed the impacts of individual empowerment as revealed in evaluations. Here we review the results of evaluations of group empowerment. Although the authors did not do so, I will divide the evaluations of group empowerment into two kinds that allow us to continue our analysis of empowerment. Having discussed evaluations of individual

empowerment models in chapter 11, we now examine evaluations of group models. We will distinguish between employee participation, which we described in chapter 11 as a motivational model, and employee involvement, which we described as a participatory model and between social models and participative models of empowerment.

Evaluation of Employee Participation

Although it can be argued that employees should be involved in the decisions made in the workplace for self-efficacy, health and ethical reasons, little research has been done on this aspect of empowerment, the employee perspective. Cotton (1993) reviewed the results discovered over many evaluations from an employer perspective, that is, whether employee involvement improved productivity, job attitudes, costs, absenteeism, and turnover. Some of the measurements had weaknesses, such as populations limited to students. Most studies characterized what occurred as employee participation, a more limited concept than employee involvement. The researchers discovered that the key contextual variables in determining the success of experiments were individual differences, participation processes, the methodology used in the study, and the form that the employee involvement took. The factors studied did not include the broader contextual issues, such as dominant ideology and power in the workplace.

Cotton conducted a meta-analysis of all the studies. The weakest effects were found with quality circles, that improved attitudes about programs but had few effects on productivity and employee attitudes, and representative participation, that had few effects on productivity or employee attitudes. Intermediate effects were found in *quality of work life* interventions, producing improvements in labor-management relations, with varying effects on productivity and employee attitudes; *job enrichment*, producing improvements in job attitudes, with varying effects on productivity; and *employee ownership*—cooperatives were linked to better job attitudes and productivity, while employee stock ownership plans had varying effects. Cotton found the strongest effects in *self-directed work teams*, involving improvements in productivity and job attitudes, and in a specific version of employee ownership, *gainsharing plans*, producing improvements in productivity and some effects on employee attitudes.

All of these measures were not applicable to the public and non-profit sectors: for example, the lack of productivity measures limits their use in the public and non-profit sector. Positive outcomes in labor-management relations and employee attitudes are relevant measures for all sectors.

Evaluation of Employee Involvement

Nightingale (1982) matched ten Canadian businesses using a variety of participatory mechanisms that contributed to workplace democracy with ten closely matched cases without workplace democracy. He identified the degree of empowerment and participation according to eight criteria for degree of power and twenty criteria for participation. The forms of workplace democracy included board-level representation of workers, Scanlon plans (which include a philosophy, a participative committee system, and financial incentives), works councils (bodies of elected employee representatives who have co-decision-making rights with management), producer co-operatives, self-directing work groups, and combinations of these forms.

One case made a significant departure from conventional practice, and was probably the industrial company with the most workplace democracy at the time in Canada. Located in Stoney Creek, Ontario, The Group at Cox designs and manufactures systems for dental offices and clinics. At Cox workplace democracy included board-level representation, a works council, and self-directing work groups (Nightingale, 1982: 198-249). Although the study did not address the complex issue of productivity, European studies have either found no decline in productivity or increases in productivity due to workplace democracy. There have been some exceptions, such as Tricofil, a Canadian firm, that became profitable when government funding was made conditional on elimination of self-management and reintroduction of professional managers and a hierarchical management structure (Nightingale, 1982: 183-185). Because of government's readjustment of the profitability dynamics, however, Tricofil might not be a good test of how workplace democracy affects productivity.

Meta-Analysis of Social Models of Empowerment

Among Cotton's participation models, I would judge that social needs are met in participation, participation on issues, and participative decision making models. Other models address social needs as well.

Quality of Work Life Models.

Following the ground-breaking work of the Whitehall studies, it is now clear that employees who lack control are sicker and more likely to die than empowered employees.

Disempowerment costs employers money—in lost work time and in insurance costs, as well as by creating a worse social environment and poor morale. Empowerment, greater equality in status and power creates happier, more effective and healthier employees.

What is a healthy workplace? It is an organization that listens, provides social support to its employees, allows them power and choice, and recognizes them in a way that they find valuable. Typical initiatives include paid educational leave, a work-non-work balance, and workplace social events.

Listening to and Involving Employees. An empowering organization is one that listens to its employees. Quality circles are one mechanism for creating voice for employees. Others are gainsharing plans and representative participation. The National Quality Institute (NQI) emphasizes this message. Its Employee Feedback Questionnaire assesses general job satisfaction, satisfaction with the organization and supervisors, employee coping, co-worker cohesion, and employee commitment. The main focus in the NQI model is on responding to employees' needs and desires, hence it is an enabling model. The issues addressed and copies of the NQI's Employee Feedback Questionnaire are available on Internet.

The NQI Healthy Workplace Award

In 1998, Health Canada and the National Quality Institute announced the launch of a Healthy Workplace Award to acknowledge healthy workplaces. Nominees for the award are assessed in five areas: leadership, planning, a people focus, process management, and outcomes. To earn recognition, employers must demonstrate that employee health and well-being are an integral and strategic part of the way they do business.

Among Nightingale's management models, human resources is a social model. Three of Cotton's models—participation, participation on issues, and participative decision-making—are largely social.

Participatory Models of Empowerment

Cotton's models of joint decision-making and participative management are participatory approaches. These models address the imbalance in allocation of power in the workplace as a determinant of employee empowerment. The concept of workplace democracy brings these models together.

Empowering Participation – Workplace Democracy Models. According to Elden “the central feature common to all workplace democracy models is a requirement that participants not merely participate but also have some power, control, and authority over what they are involved in.” (Elden, 1986: 250) He suggests the common features among four cases of workplace democracy that he reviewed were (1) rejection of conventional organizational development as a source of empowerment, (2) skepticism of participation as potentially cooptive, (3) the view that organization democracy and political democracy are not the same thing, and (4) the view that empowerment as a learning process legitimizes new possibilities for action from the bottom-up. He feared “Without power, participation results in paternalism at best, and in a hidden managerial control strategy at worst.” (Elden, 1986: 250). Other methods for sharing power include self-directed work teams and employee ownership of the company.

Nightingale (1982) described the dimensions of workplace democracy as: (1) the degree of power employees have (right to be informed, to be consulted, to participate in decision-making, to have the final say), (2) the issues subject to participation (“shop-floor” and “policy”, (3) the membership of those with the right to participate in decision-making (top management, top and middle management, all managers and supervisors, or all employees).

Conclusion

The key factors that seemed to support continuous innovation in Japanese companies were effective conversion of tacit to explicit knowledge, redundancy in information sharing and task assignment, and continuous creation of the knowledge spiral. Individual creativity was found by Amabile to be mediated by the group and can be supported by the social environment and management. Woodman et. al. (1993) also found that the elements affecting creativity which employees and management could influence were knowledge, motivation, social and (to some extent) contextual influences. Studies reported contradictory findings on whether managers should create teams of creative people (a kind of homogeneity) or teams with a diversity of backgrounds and skills. Likewise, there was no consensus on whether the way in which groups function and the processes used with groups affected creativity, but it was clear that the group mediates individual creativity. Recent Japanese work on knowledge creation has described creativity in terms of making tacit knowledge explicit and has suggested this process can be enhanced. Other key factors in creating continuous innovation are information sharing and ongoing creation of the knowledge

spiral. The social environment can also facilitate the intrinsically motivated individual making her/his knowledge explicit. The empirical underpinnings of these ideas are still limited, however, and some authors continue to conclude that we do not know how to facilitate personal creativity (e.g. Dror, 1997). Dror does agree, however, that "(i)t is possible to design organizational structures and processes which encourage innovativeness and creativity" (Dror, 1997: 15). The newest and most interesting area of theory development is the individual-organizational interface and how tacit knowledge can be converted into explicit knowledge.

Although Nonaka did not draw this link, it is worth considering whether culture is in fact a type of tacit knowledge, or perhaps an expression of tacit knowledge. If so, how does that knowledge express itself, how does it become converted into explicit knowledge, and how does it change? Perhaps the answer to these questions lies at least in part in the way groups function.

Chapter 13: Empowerment of Clients and Citizens

Introduction

In Section II we introduced the role of individuals, and especially leaders, in innovation.

Social Interventions: The 16 Decisions

1. The 4 principles of the Grameen Bank—discipline, unity, courage and hard work—we shall follow and advance in all walks of our lives
2. Prosperity we shall bring to our families
3. We shall not live in dilapidated houses. We shall repair our houses and and work towards constructing new houses at the earliest.
4. We shall grow vegetables all the year round. We shall eat plenty of them and sell the surplus.
5. During the planting seasons, we shall plant as many seedlings as possible.
6. We shall plan to keep our families small. We shall minimize our expenditures. We shall look after our health.
7. We shall educate our children and ensure that they can earn to pay for their education.
8. We shall always keep our children and the environment clean.....(cont'd)

Social Interventions: The 16 Decisions

(cont'd)

9. We shall build and use pit-latrines.
10. We shall drink tube-well water. If it is not available we shall boil water or use alum.
11. We shall not take any dowry in our sons' weddings, neither shall we give any dowry in our daughters' weddings. We shall keep the center free from the curse of dowry. We shall not practice child marriage
12. We shall not inflict any injustice on anyone, neither shall we allow anyone to do so.
13. For higher income we shall collectively undertake bigger investments.
14. We shall always be ready to help each other. If anyone is in difficulty, we shall all help them.
15. If we come to know of any breach of discipline in any center, we shall all go there and help restore discipline.
16. We shall introduce physical exercise in all our centers. We shall take part in all social activities collectively.

Section IV to this point has been devoted to a further discussion of empowerment, with chapter 11 addressing the potential for empowerment of individual employees, the contribution they can make to innovation, and what we know about employee empowerment. In chapter 12 we explored the capacity for empowerment of groups in the workplace. Chapter 13 moves outside the organization to explore the potential for empowerment of clients and citizens, and the contribution their empowerment can make to innovation.

Client Empowerment as an Explicit Objective

While some tools for client empowerment have been developed,

including tools to measure quality of care from the perspective of clients (e.g. Dowling, 2002; Bengtsson and Wiene, 2002), client empowerment has often been a symbolic objective of organizations, and incidental rather than fundamental to organizational objectives. There are cases, however, where client empowerment is an explicit objective of the organization, and is actively pursued. Consider the case of the Grameen Bank of Bangladesh.

An Example of Client Empowerment from the NGO Sector: the Grameen Bank

The Grameen Bank has two potentially contradictory goals—commercial profitability *and* poverty alleviation. While it is proud of its high loan repayment rates (98%), the most important goal is to help poor people move forward and live the Sixteen Decisions (Holcombe, 1995, chapter 4) (see boxes). Unlike other development agencies, that begin by developing client capacities, the Bank starts with a commitment to values.

Some of the rules for loans are limiting, but at the same time they are empowering; for example, the requirement to adhere to the sixteen decisions and to save money. Clients are required to form and participate in centres. By forming centres, those receiving loans create a self-support group, share and therefore reduce the individual risk in receiving a loan, and create pressure to fulfill commitments. When participants are accessing a loan, they are also saving money and creating a group resource.

In her book-long evaluation of the Grameen Bank, Susan Holcombe (1995, chapter 5) concluded the Bank had achieved qualified success in living by its desire to empower management, but had succeeded more strikingly in changing direction from the broader society. Rahman (1999) was more critical. His study of the effect of the Bank on one village was a more in-depth study than Holcombe's. He found that in some cases male members of the families of women receiving loans were stealing the funds from the women, and abusing the women. The risks were thus being assumed by the women, but the benefits were being assumed by the men. Rahman inferred that neither bank workers nor, in such cases, women clients of the Bank, were empowered, because of

the male-dominated, hierarchical value system within which the Bank is operating. While Holcombe perceived some change from those values, Rahman emphasized the ways in which they were still at work.

In the case of both Semco Corporation (see chapter 11) and the Grameen Bank, empowerment was forced upon employees and clients. In the sense that the relationship was one of unequal power, the new relationship created was not much different from that created with delegation, at least in its initial stages. Employees and clients were not consulted about what they wanted. This is an odd notion of empowerment, somewhat akin to parents pushing their children out the door, using *tough love*. Control over the relationship, what was on the table and what was not, remained with the organizational managers but the directions were positive. In the case of the Grameen Bank, empowerment was a condition of clients receiving loans. Lorne Sossin has addressed the relationship between clients and organizations (in his case, government bureaucracies) in a different way—at the personal level—but sees much of the potential impact as being at the group or public level.

Criticisms of the Grameen Bank

Holcombe, 1995:

- Bank may not be able to recover its costs sustainably— may be dependent on foreign aid. Objective is to be independent.
- Questions about whether accessible credit is the best answer to poverty, or whether reform in property rights, limited liability and easy licensing might be more helpful
- The microenterprises funded may not be able to sustain themselves. Most enterprises are low tech (e.g. cow fattening or milking), so the rate of return is low
- Bank has potentially conflicting goals—commercial profitability, combined with long-term poverty alleviation.

Rahman, 1999:

- Although loans are made to women, men are often the recipients of and control the money
- Increase in violence against women who are recipients of loans
- Assertions that neither local bank workers nor women are empowered.
- Evidence is from one village only.

Empowering Clients of the Grameen Bank

- The service is offered, poor people decide whether to take it. Organizing a group is a precondition of receiving loans.
- Those seeking loans become members of the Bank, similar to a co-operative. By becoming members, the clients become a part of the organization as well as the customer.
- Awareness building, consciousness-raising and leadership development follow rather than precede the delivery of credit services.
- The time from when a group of five men or women decide to form a *centre*, to when they are recognized as a group can take only a few weeks.
- Members pay about 25% of their total interest into an Emergency Fund that serves as life and accident insurance for members
- Five per cent of each loan is automatically paid into a Group Fund. Members also pay into the Group Fund. The Group Fund belongs to the group and its use is decided on by the group.

The Citizen-Bureaucrat Relationship as an Intimate Relationship

Lorne Sossin (1993, 2000, 2002a, 200b) has explored the possibilities for the relationship between what he calls bureaucrats and citizen-clients as a more equal and open relationship—an intimate relationship—whose objective is to create consensus about decisions. For Sossin, the primary characteristic of this intimate relationship is that both parties reveal their reasons for what they say and do. Both parties are more open about their motivations; he puts special emphasis upon the bureaucrats doing so. Sossin emphasizes two aspects of the relationship. As well as recognizing that this is a subject to subject relationship, not a subject to object relationship, in order to create an intimate relationship, bureaucrats would need to recognize and acknowledge the discretionary decision-making powers that they have.

As an example, Sossin describes a woman ordered deported under the Canadian Immigration Act who made application for an exemption from the provisions of the law, based on humanitarian and compassionate considerations. The woman was mentally ill, and had borne four children while living in

Canada, in addition to her four children living in her Caribbean home. She would be returning to a country with underdeveloped mental health services for herself, and a poorer educational system for her children. Although Sossin provides little information about the details of the motivations of the applicant, the typical judgement the bureaucrat must make is whether an applicant's true motivations are economic (an unrecognized consideration under the Immigration Act) or fear of suffering and risks to human rights and life (recognized considerations). The latter was the issue as presented by the applicant in this case.

Unusually, the junior immigration officer's notes, taken when he interviewed her and providing insight into the officer's motivations, were released when the negative decision was challenged by the applicant. The notes revealed that the officer emphasized the applicant's mental illness, her dependance on welfare, her potential for violence, and the number of children she had borne. The well-being of the woman and her children did not seem to have been a substantial

consideration, although under the Act and regulations, they could have been. Sossin argues that in such situations the client and the officer need to develop a more open relationship in which they reveal more about their thinking. Although Sossin does not dwell upon this issue, if a relationship of trust could be created between client/citizen and public servant, and reliance could be less on supposedly but not truly objective rules, the public servant would also be empowered to be himself and to learn from his experiences. Whether applicants and the media, Executive, Official Opposition, courts and clients would be willing to allow public servants this space is not at all certain.

According to Sossin, the relationship between the client/citizen and bureaucrat is one in which knowledge (power) flows from the citizens to the bureaucrats. Sossin worries, as well, that the current emphasis on customer service in, for example the tax regime, benefits most those who are already rich and powerful in relation to government (Sossin, 1993, p. 388). Citizens have been reduced to the role of fragmented clients, and communicative practices have become mechanisms “for further rendering tax administration the domain of elites and experts” (Sossin, 1993, p. 390).

The bureaucratic position is typically that the bureaucrat exercises little or no subjective role or judgment. Sossin argues, rather, that there is always a subjective element, and that bureaucrats need to “recognize the reality of the bureaucrat-citizen relationship and develop incentives and structures to nurture it” (Sossin, 2002a, p. 143). In other words, administrative discretion needs to be wielded in a more human and a more developed manner.

This notion Sossin describes as democratic administration. He argues that:

...current forms of administrative action are neither as rational nor as democratically legitimate as they could be. By relying on rules rather than on consensus, and by minimizing the participation of those affected by public administration, bureaucracy under the welfare state has resulted in a general loss of meaning within the public sphere and a high degree of social alienation.” (Sossin, 1993, p. 364).

The solution lies in the transformation of the citizenry from the object to the subject of government (Sossin, 1993, p. 365).

Whether the public servant or the client want to create a relationship of intimacy is a question Sossin does not address. Let us consider the possibility they would not. Client/citizens approach public servants to secure something. They present the ways in which they see themselves as eligible, to the extent that they know what the rules are. They are not always fully present as citizens in this relationship, and may not want to be fully known. Public servants in this situation are constantly being asked for something that has limited availability, such as a favorable immigration ruling or a lower tax charge. Most of the requests for exemption must by definition be turned down, or the system itself will change through administrative decisions. The public servant works for the government, and only indirectly for the citizen-client. All of his direct responsibilities are to his superiors, the Executive and the government of the day. His job is not to implement his personal perception of the situation, although, as Sossin points out, this is an unavoidable element in his decision.

One of the ways in which a public servant's personal perceptions and values are at work, is to help her explain to herself why what she must do, as defined by her employers, is what she should do. Most people need this kind of congruence. These issues are rarely explained to

employees in terms of values (as opposed, for example, to authority), and when they are, they tend to be defined in terms of relatively unsophisticated values such as fairness (at a level that would be understood by a young child-See Table 2) and definitions (treating everyone the same way). Unlike Sossin, it does not make sense to me, that a public servant would want to create a personal relationship with people to whom she is constantly saying “no” and to whom she cannot easily explain and justify the reasons in a way that applicants would accept.

Professionals—doctors, social workers, speech therapists—have also adopted a more neutral model as the professional mode. Governments are not alone in turning the client relationship into a third-party relationship. While this does indeed feel like a subject-object relationship to the client, is it possible to create a true subject-subject relationship in today's conflictual public service environment?

It is worthwhile, in this regard, to recall how and why the notion of an objective public service developed. It grew out of the rampant corruption and cronyism of 19th century governments, and the incompetence of politically hired public servants and soldiers. Recruiting was based on personal relationships, and decisions were made on the basis of those same relationships. While Sossin is not arguing for a return to this type of relationship, the important question is whether it could be avoided. Once public servants were given greater decision-making latitude, would they be able to tolerate the pressure of government ministers, bosses, friends, families, people from their social, religious or ethnic groups, to provide positive decisions?

The development of the bureaucratic model in the Prussian government and military in the 1860s, the scientific management movement in North America, Woodrow Wilson's notion of the separation of politics and administration, and Max Weber's idea of the rational-legal organization were their solutions to the problem of favoritism. While not a perfect solution, it has some real benefits. The model is more than a hundred years old, and has not been substantially revised, despite the policy changes concerning the role of government wrought by the New Public Management.

In terms of creating an intimate relationship between public servants and citizens/clients, the NPM notion of customer/client rather than client/citizen has, at best, muddied the water. What gets delivered is a third-party notion, services, while what citizen/clients often want delivered is the respect, concern, information and services that should be accorded to them as citizens and that they need or want, as individuals. These are services for which they have paid, in advance, in another of their roles vis-a-vis government: that of taxpayer. Rather than the main objective being one of finding a way to say “no”, in this relationship the civil servant would be looking for a way to say “yes” to the citizen/client's request. Demands on public services would increase and services would cost more in this environment, and control systems would be less stringent. I am not sure the current environment is one that favors either outcome. As is often the case, client/citizens are often more interested in securing the benefits than paying the costs of public services. Or, looked at differently, they are more interested in seeing someone else pay the costs.

The subject-subject relationship that Sossin describes would put even greater pressure on public servants. In addition to the current requirements to treat clients with respect and fairness, according to a consistently applied set of rules, they would now be required to exhibit a set of liberal values. Is it right, and is it actually possible, to require this of bureaucrats? I am not sure it

is, on either count. Moreover, is it possible to require this of the current set of bureaucrats? Most of the people doing these front-line jobs are clerks with at best high school educations. Many of them do not hold liberal values, nor necessarily do their clients or the people from the same communities or ethnic groups from which clients come. How, then, can the bureaucracy ask either party to participate in an intimate relationship in which they are guided by liberal values? Yet again, can employees, in fact, be required to participate in an intimate relationship as a condition of employment? I don't think so.

So, is Sossin's suggestion a reasonable direction to turn to empower the citizen-client in relation to organizations and governments? While I am clearly not convinced that the objective can be the creation of an intimate relationship, is it possible or desirable to tell about one's own values in the pressure cooker that is a front-line bureaucrat's working life? While it is inevitable that personal values will play some role, is it not, perhaps, better to create checks and balances that assess whether personal values are playing too large a role?

The bigger question is whether it is possible to create a true subject-subject relationship between a client/citizen and a bureaucrat. I, like Sossin, believe citizen/clients have the right to be treated as subjects, not objects (and so do the clients of professionals). Sossin has suggested one way to create this relationship. Are there others that might perhaps work better? I wish I knew, but I do not. It is, nonetheless, an important question, and Sossin is probably right that the distancing of clients and bureaucrats has contributed to the low repute in which government is held.

I am not convinced it is the main reason, however. Another element in this change in the public's perception of government lies at the door of the authoritarian and conservative directions governments have moved in the last twenty-five years. The emphasis on communications (née propaganda), presidential politics, and the dogfight between liberal and conservative values have all added to this trend. The emphasis upon *citizen empowerment* during the 1990s may have been a reflection of these politics and the desire to empower one's own group and politics more than it was a reflection of a real intention to empower the public overall

Citizen Empowerment: The Public's Perspective

For the most part, citizen empowerment has been operationalized as stakeholder consultation. Most *public consultation* has had little to do with the public or citizen empowerment. Usually, it is about securing the endorsement of a few stakeholders. Citizens and stakeholders have been treated as the objects of policy who are asked their responses to proposals. They have not been treated as joint subjects in the policy creation process. The principle hidden in this kind of consultation can be control by organizations and elites. The distinction used in the workplace between participation and involvement are relevant in the relationship between governments and clients/citizens as well.

The alternate principle of empowering the public to exercise control over its own government is a good one. It is not an easy one to implement from the government perspective. The process can produce no clear support or it can be kidnapped by special interest groups. The public must create its own power base and exercise its own power, or its ideas are ultimately likely to be ignored. People with ideas need to find a market for them; in other words, a public willing to

support or at least accept them. Many innovation champions would throw up their hands at the idea that they had to influence or deal with the population as a whole to secure acceptance of their innovation. Yet without such acceptance and support—public or market—an innovation will not go anywhere. Although it is done, innovation without acceptance is not the ideal approach.

Still, let us face facts. Some change animators ram policies down people's throats, present them with *fait accompli*, and overwhelm potential opposition with multi-million dollar advertising campaigns. People can be coerced, ignored or manipulated into accepting lots of innovations, without ever having been seriously consulted (or even taken seriously). Demeaning and dismissing people also works. Most of the same time, even good things sometimes have active opponents—in Saskatchewan, for example, the first North American medicare was introduced in a confrontational setting and occasioned a doctors strike. These approaches create splits in society, and sometimes have very nasty and enduring long-term consequences. Other times, feelings settle down afterwards. Yet other times, innovations are brought about in empowering ways. What is behind the difference?

Public support should be a combination of two factors—a public wanting or actively willing to accept a change, in other words, a public acting as a subject, not an object, combined with an innovation available to meet that desire. This requires a pro-active public. While some innovators think of the public as a source of resistance, in fact they regularly initiate and become willing allies in change. Why else would governments change hands? At least, in a democracy, there is a mechanism for implementing that change. Some populations develop a taste for change more often than others. Facilitating and reflecting that desire is the job of politicians and innovators. As an innovator you must take the pulse of both the politicians and the public involved. If an intimate relationship is required, it is between public servants and citizens, not between public servants and clients. In this relationship the actors share at least some common objectives. Clients and citizens are not the same thing.

First public, insured medical and hospital insurance programs in North America

Public, insured medical and hospital care existed in the Swift Current Health Region of Saskatchewan for twenty years before Hospital Insurance and Medicare Insurance respectively were introduced provincially in 1946 and 1962, then nationally in 1957 and 1968. Because a significant portion of the population could not afford these essential services, doctor's incomes were insecure, doctors were hard to recruit, and an assured income helped attract them. By placing doctors on salary and providing hospital care for free in Swift Current, the doctors got paid and the services got delivered.

An Example of an Empowered Citizenry

Consider a specific example of a population's readiness to change. The population of Saskatchewan (sometimes known as Canada's Minnesota) has regularly become ready to change in fundamental ways as evidenced by its swings between left-wing and right-wing governments. Because they have had to, because Saskatchewan life has been hard, some new, creative, generally low-cost solutions to very difficult problems have been developed and adopted by Saskatchewan governments. Saskatchewan combined a tradition of pragmatism and innovation. Sometimes,

major programs were pilot tested by government, evolved and grew conceptually, achieved administrative sophistication, and developed widespread popular and political support, before their introduction as government programs. Public, insured medical and hospital care are cases in point (see box).

While it is important to understand the pragmatism, it is also essential to realize the expectations of the population. Groups, such as aboriginal people, expected the government to be active. Because an early agriculture program was introduced at the University of Saskatchewan, farmers were well educated, world class in their methods, and involved in interprovincial and international initiatives. They had no problem, they even expected, their government to be world class as well. However, high expectations had disadvantages, as well. Sometimes the government moved too fast, and was consequently less innovative than it might have been. This case was demonstrated with the creation of the Department of Northern Saskatchewan in the early 1970s, when the opportunity to change the power structure of government was abandoned in order to introduce immediate, but incremental, change (Hammersmith and Hauk, 2000).

These factors combined in Saskatchewan to form a government and a population willing and prepared to try new approaches. Populations in Manitoba and British Columbia showed the same willingness as they turfed out both left- and right-wing governments with regularity. They did not do so in Alberta, where changes in leadership rather than governments created change; the ideology remained consistently conservative.

While an empowered citizenry reveals itself in a variety of ways, including but not limited to its assertion of its power through electing new governments, governments can also take actions to empower citizens. Consider the budget process created first in the City of Porto Allegre, Brazil.

An Example of a Process for Empowering Citizens

Porto Alegre has put in place a participative budget-setting process for the City budget (Doucet, 2002). The participative budget is a whole new way of preparing municipal budgets. Prior to 1988, it didn't exist. Prior to that date, Porto Alegre prepared its municipal budget exactly the same way every Canadian city and town does now. Staff worked hard behind closed doors. The budget was then presented to Committee where it was discussed, small changes were made and then it rose to Council where it was passed.

In 1988, the social democratic workers party, which was elected for the first time in Porto Alegre, decided that it wanted to find a new way of preparing the city budget. After their successful election, they went back to the electorate and said, 'we don't like the old system. We think it should be replaced by

Costs of Participative Budgeting

The planning cycle is ten months, it begins in March and finishes with the document rising to City Council in December. In Ottawa staff spend ten months on the budget, but the public consultation process, including council meetings, is six weeks. Council and committees receive the same amount of time to debate the budget in the participative model as in Ottawa. The principal added costs come from the printing of documents and organizing of public meetings which requires new city staff to undertake. This is probably in the order of two million dollars minimum.

something else but we're not sure with what. Please help us figure out a new way.' Public discussions were held and the *participative budget* was born.

Essentially, what the participative budget does is take the city staff process used in Canada and throws it open to the public. Instead of staff evaluating and negotiating behind closed doors, they take their very preliminary documents to the public in March and the public discussion begins.

The whole budget process begins on a different premise than that of the typical Canadian city. Clive Doucet, Ottawa city councillor, described his city's budget process as follows:

In Ottawa, we begin with a financial envelope of X dollars of Capital and Y dollars of Operating funds and then the budget exercise is to shoe horn all the essential services and most pressing capital demands into that envelope size. At the end of the day, all the media is really interested in is 'did you make it?' Did you force the city's expenditures into the budget envelope and if you didn't how much did you take from the Reserves? Or deficit finance? Or what project did you cut? The budget process is all about the money envelope; the service and community investment side of the budget appears almost as an after thought. I have never seen a single editorial or columnist in the Ottawa press talking about the benefits of say investment in public transit versus roads.

Rather than a preoccupation with 'saving' money, the word budget does not appear anywhere in Porto Alegre. The city budget document is called the 2002 City Investment and Service Plan document. Just as Saskatchewan came to appreciate during the 1970s that the budget is primarily a program plan, not a financial plan (Wallace, 2000a), Porto Alegre places its emphasis on investments and

What Difference Does it Make?

In Ottawa (Canada), it is very clear that all of the central city neighbourhoods want to see their small scale community and recreation centres modernized and expanded. They do not want car based, 'recreation complexes'. The citizens of Ottawa under the current budgeting process cannot get either the city staff or council to buy into small-scale community centres, and there has been what amounts to a ten-year conflict between residents and City Hall. The citizens have mounted partnership funding drives, protests, parades, bake sales and tea parties to get city hall to reinvest in neighbourhood scale recreation infrastructure. On the city side, the city keeps commissioning new consultants to create recreation studies designed to prove to citizens what they want is not efficient or reasonable, and what they should really want is a modern, multi-purpose centre with several ice pads, a swimming pool, a library, an administration centre, and a convenient parking lot.

This has wasted a huge amount of time and effort on everyone's part and effectively frozen any reinvestment in central city community and recreation centres. In a participative budget this kind of problem simply disappears because planning becomes part of the budgeting process. In the participative process, staff and residents come to an agreement around planning as well as the disposition of funds, because the process is designed to create consensus, not entrenched opposing positions.

Source: Clive Doucet, City Councillor, 2002.

outcomes.

In Porto Alegre, they start the budget debate with needs and desires. The questions debated are: What services do people want? What new expenditures do people want? This is the primary preoccupation of the public process – to identify each ward's priorities and the overall city priorities. The participative budget process doesn't have the say on what priorities will be approved or even how much money will be raised by the city to pay for the priorities identified, this all remains with the elected council. What the participative process does is identify the priorities and the distribution of those priorities across the city and within each ward.

Clive Doucet reported:

As one of the citizens on the citizen panel that I attended said, 'we still have industries which pollute in Porto Alegre. We still have a problem with urban poverty. The participative budget hasn't solved all our problems, but it has made the budget system more transparent, more honest, more equitable and there is more confidence that our tax dollars are getting spent on what people want, not what someone in authority thinks will be good for us.

As an example of equity, this citizen pointed out that Porto Alegre had the opposite problem from the city of Ottawa and most Canadian cities. Instead of the suburbs receiving the bulk of the annual city allocations, as they do in Canada, the funds flowed into central city neighbourhoods. Suburban areas were much poorer and less well served with even basic services like sanitation and piped water. As a result, the central areas of Porto Alegre are delightful. They are blessed with many parks, elegant, generous streetscapes and the public spaces are all beautifully maintained.

After 12 years of participative budget, the basic services to the population have grown impressively. The number of children in school has doubled. Daycares have grown from two to 120, homes with sanitation from 46 per cent to 85 per cent between 1989 and 1999. Twenty-five kilometers of new road have been added, the proportion of the city with sewage treatment has gone from 2 per cent to 26 per cent. The public transit system is especially impressive, a fully integrated system from light, electric rail, to articulated buses on busways, shoulder lanes for buses, mid-sized buses, small buses, air conditioned, comfortable, 95 cents Canadian to use. The effectiveness of this system was evident in the usage. The buses were busy all day. Everyone used them. There are few parking lots in the downtown. People used the bus not because they were poor—Porto Alegre is a very middle class city, larger than Edmonton or Ottawa at 1.3 million, but similar in neighbourhoods, universities, hospitals, businesses—Alegrans used the bus system simply because it was less hassle than driving your own vehicle to your destination. The private car in Porto Alegre seems more like a social accouterment than a necessity—nighttime sees more cars on the street.

The *no tax increases* mentality has not taken hold in Porto Alegre. Rather, the demands for city services are so strong and clear from the Alegran population that the city has raised additional taxes through a real estate tax, similar to Canadian development charges and through small regular increases in property taxes.

These are very big accomplishments. The size of them can be appreciated when one learns that, although the participative budget was only born 12 years ago, in 12 years it has spread to 200 Brazilian municipalities, including most recently Sao Paulo. Sao Paulo is a city of 15 to 17 million people, the biggest city in Brazil and one of the largest on the planet. It has been politically successful, as well, since councillors sympathetic to the participative budget process have been

returned for three successive mandates and it looks like it will be returned for a fourth. A participative budget is inclusive enough in both the particular and the citywide to pick up the right kinds of connections and to come up with different decisions because the bowl of considerations is larger. This process achieved what Sossin also highlighted—consensus about change.

Strategies for Empowering Clients and Citizens

Like many issues in this book, the question of how to empower clients/customers and citizens is a complex one. Empowerment grows best out of a combination of actions rather than one single component, process or effort. Four key elements are the process used to determine political priorities (set the agenda), the consistency between intent and practice, true power sharing, the personal relationship between the citizen-client and the bureaucrat.

Strategies for Empowering Clients and Citizens

- create an empowering process
- align intent and practice
- share power
- create an intimate relationship between citizen-client and public servant

Create an Empowering Process

If the process by which the innovation is created is not empowering, employees, clients and citizens cannot be empowered. Hammersmith and Hauk (2000) demonstrated the need for a partnership between people and process in the creation of the Department of Northern Saskatchewan. They showed that the process used had negated the original intent of the innovation, to empower northerners. The process entrenched the power of the new and old bureaucrats in the department, and led to northern government with less power than planned.

The old patterns were recreated in the new organization. Innovative policy is more likely to emerge from an innovative policy development process, rather than an incremental policy development process (see box) and clients/citizens are more likely to be empowered if the policy development is carried out in an inclusive manner.

During the 1971 election, the NDP had promised to develop a comprehensive northern development program, with emphasis on the needs of native people, and to ensure that Indian and Metis organizations were involved. These commitments were not fulfilled until 1980. By then the population of the north was skeptical, but eventually came to believe the government was sincere in

Incremental vs. Innovative Processes

“An incremental change model develops policy, starting from a well-established benchmark, making modifications to suit an environment which is perceived to be changing only slightly. In an innovative change model, re-examining, redefining, and perhaps even re-envisioning the problems which are the subject of government policy is fundamental. Innovation clearly implies that at some point, the agents of innovation have examined a policy problem with different assumptions, beliefs or values in place than had existed previously.”

Hammersmith and Hauk, 2000: 68.

its efforts to empower northern people.

The four organizations whose empowerment techniques were studied in the last three chapters used different processes, as demonstrated in Table 12 and Table 13. The Grameen Bank highlighted client empowerment the most, using empowerment techniques that are unique. Other development agencies deliver skills training and try to develop individual empowerment before providing funding to clients. So do many government programs, such as employment programs that start with employment readiness training. The Bank, instead, provides minimal initial training, that centres on communicating and securing commitment to a shared vision of a better individual life. This is a life with improved housing, smaller families, no dowery, dug wells and use of well water. It is one in which clients grow and eat healthy food, and save money. Remember, this approach is used with people who live in poverty and extreme poverty, and who lack a sense of being able to change their fate.

The Bank then moves immediately to form groups and loan money. The individual is protected by the group. Learning continues throughout the process, based on current needs. Specific rules also empower, such as only loaning money for building houses to women. Staff are always looking for ways to support clients, such as by setting up vaccination programs for sick cattle, but also by empowering clients—the clients were taught how to do vaccinations and then they did the vaccinations. The Bank overall operates in a manner calculated to empower clients. Many of these approaches are applicable to other clients, customers and citizens.

As Tool #19 and Tool #20 offered some ideas for empowering employees, Tool #21 makes suggestions for empowering clients and customers. Tool #21 introduces two concepts. *Action learning* encourages participation in knowledge sharing and constructively criticizing diagnoses and prescriptions. *Critical action learning* adds some components to action learning, namely social development concerns, an appreciation of interdependence, a wide openness to other groups, and critical scrutiny of received wisdom. Rather than being developed in response to problems, models, concepts and ideas are developed through an interplay of thinking about practice and application of ideas from critical traditions (Alvesson and Willmott, 1996: 206-212). The result is a broadening of political and ethical choice.

An example of an innovation that empowered both clients and citizens was Freenet. Freenets are community computer service providers that furnish email addresses, community information and community networking for free. The workers in Freenet are primarily volunteers. Freenets have focused on making computers more accessible to citizens. In some cases they have provided training to their clients. In Finland, the Finnish Information Society used a different approach to making computers more obtainable. It developed a certified training program for Internet use. The program was developed initially for unemployed workers, following the

Tool #21: Empower Clients and Customers

- Are clients/customers allowed to control the resources? Yes " No "
- Are they trusted? Yes " No "
- Was the program developed through action learning and critical action learning? Yes " No "
- Were empowering evaluative techniques used?
- Was an intimate relationship created between client-citizen and public servant?

economic disruption caused by the break-up of the Soviet Union in 1990. Finland lost 25 per cent of its trade at that time. The training, which has been given to 100,000 people out of a population of five million, has enhanced the accessibility and skills not only of the unemployed but also of the elderly and the poor (Repo, 2003).

The Porto Alegre innovation was the extensive use of consultation to create consensus and then to determine priorities in budgeting. Through this strategy the city was able to determine priorities and make choices that permitted fiscal responsibility but did not tie the city to unreasonable choices such as zero budget increases. Citizens were more satisfied, and the politicians were more successful.

Table 14 compares the use of client/citizen empowerment techniques in the three cases reviewed here in detail. The government of Canada made a limited effort to empower clients/citizens, while both the Grameen Bank and Porto Alegre made specific efforts. The Bank and City appear to have had some success. The increased violence against women detected by Rahman (1999) is perhaps an unforeseen consequence of empowerment in a highly unequal society.

Freenet

The original Freenet was created in Tallahassee, Florida in 1993, followed by ones in Cleveland, Ohio, and National Capital Freenet in Ottawa, Canada. The main principles of Freenet were not only free service, that made computer email more accessible to more people, but also empowering citizens to interact concerning public issues. The purpose of Freenet was to improve communities. More recently, freenets have given priority to facilitating access to those who cannot afford computers, by collecting used computers for distribution in their communities. Freenets are now available in numerous American and Canadian cities, to the whole United Kingdom, and in states of the former USSR.

Table 14: Comparison of Client/Citizen Empowerment Techniques in Four Cases

Techniques Employed:	Employer:			
	Gov't of Canada	Grameen Bank	Semco Corpn	Porto Alegre
Client/citizen surveys	Sometimes			no
Value clients/citizens	yes	yes	yes	yes
Build teams with clients/citizens	not for usual work	yes	yes	yes
Give clients/citizens control over some of the budget	no	no	no	no
Consult clients/citizens on important issues	not usually	?	?	yes

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Clients/citizens have input to strategic decisions	Not usually	Sometimes	?	Yes
Clients/citizens have some control (major influence over) over strategic decisions	Not usually	Sometimes	?	No
Clients/citizens have input to planning programs	usually	usually	?	Yes
Planning and implementation done with the citizen's/client's interest in mind	yes	yes	?	Yes
Planning and implementation done with the citizen's/client's empowerment in mind	To some extent. Other influences: political implications, legal and regulatory framework, other considerations.	yes	?	Yes
Clients/citizens have input to operating decisions	No	Often	?	Yes
Clients/citizens have control over operating decisions	No	Yes-who applies, what for, how money distributed, how group funds used	?	No
Use group solutions	sometimes	always	?	Yes
Use cooperative model	no	yes	yes-worker committees	Yes-active consultation
<i>Outcome with clients/citizens:</i>				
Growth/shrinkage of production	growth? though use of computers	large growth	large growth (6 times)	growth
Productivity	?	?	7 times	Political support

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Profit	Some SOAs/ ASDs/ service agencies showing profit.	?	Yes	N/A
Women particularly empowered?	No	yes	no	?

? = don't know

Use Empowering Evaluative Tools. Empowering evaluative techniques can come in several forms. First, innovations should be evaluated in a way appropriate to them. Requirements should not be more or less than can reasonably expected. Second, the evaluation should be done in an empowering way, and not only measure performance in terms of quality or best value indicators. In Great Britain, for example, a social service program evaluation used a qualitative methodology to enable caretakers and users to tell their stories (Dowling, 2002). Third, the objectives of both the program and the evaluation should be to empower clients. In Denmark, for example, clients were asked to evaluate their workers, and these results were shared with management (Bengtsson and Wiene, 2002).

Align Intent and Practice

The British and Danish evaluations demonstrated two ways in which intent and practice could be brought into better alignment. The Information gained would need to be acted upon to create better alignment. To do so, values would need to be better understood and examined. The Porto Alegre consultation process provided another. Yet others include the Government of Canada's pilot Voluntary Initiative that consulted with stakeholders on health policy before it was set, and the Citizens League in Minnesota, that engaged in citizen consultation on a variety of local and state issues, often with the involvement of elected officials.

Share Power

Sossin argues that the primary source of power in the client-public servant relationship is knowledge. This is something that can be shared. Knowledge about each others' values and considerations is an element of knowledge. A sense on the part of both client-citizen and public servant of having power would add to their capacity to act as subjects. Currently, neither considers themselves to have power. An object-object, passive-passive relationship does not share power and it does not work.

Create a Subject to Subject Relationship between Citizen-Clients and Public Servants-Politicians

Finally, the creation of a subject to subject relationship, not necessarily an *intimate* relationship, would allow each to value the other and to take their considerations and needs seriously, thus creating the potential for consensus. It might be able to move away from the current situation, where the primary role of the public service is to say "no".

Conclusion

Creativity and innovation have traditionally been considered unique activities, with little consistent behavior involved. Moreover, they have historically been attributed to individuals. While individuals most certainly play a role in innovation, so do groups, whether as participating employees, clients, citizens, or work teams.

Empowered relationships would involve a shift toward use of empowering processes, an alignment between expressed intent to empower and action to do so, power-sharing, and the creation of subject to subject, active-active relationships between clients-citizens and public servants-elected officials. This needs to be a respectful relationship rather than an impersonal reliance on reductionist notions, rules and regulations.

Conclusion

The concluding section provides an overview of the learning created for gardener innovators from both an analytic and a holistic perspective. In summary, the conclusion is that the gardener innovator should use both analytic and whole systems approaches.

The Conclusion ends with a discussion of patterns within patterns, as a way to understand both the complexity of groups and as a way in which both consistency and changes in patterns are achieved.

Conclusion: Can Patterns Be Changed?

Introduction

Innovation is a practical field, as is gardening. The knowledge created about the dissemination of innovations has been used primarily in communications, in the field of marketing. The ideas presented in this book lend themselves to managers and staff gaining control over themselves. The potential is enormous if organizations can remove their focus from being almost exclusively on the past and present, and instead put some interest and resources into the future.

While it is possible to direct and encourage innovation in organizations, this occurs within an existing context. Innovation emerges all the time: that is why there are patterns of innovation. The idea of the innovator as gardener considers innovation from the perspective of individuals (individual plants), challenges (particular diseases, nourishment) and the culture (garden, neighborhood, region) as a whole.

Can Patterns Be Changed?

If an organization is to progress consistently, it needs to set the stage for continuous innovation. Most major changes have occurred through *punctuated equilibrium*, brought about by periodic, momentous changes, such as transformations in ideology in government and new inventions and technologies in the private sector. Is it possible to shape an environment in large organizations in which innovation occurs on an ongoing basis? The answer is *yes*. It was done in Saskatchewan during the 1970s and in New Brunswick during the 1980s and 1990s for example.

Innovators can deal with environments two different ways: by accepting existing organizational and innovation patterns and working with and within them, or by attempting to change the patterns. Innovators work with the pattern of the existing organization through leadership, vision, and experience. This approach involves an ability to assess the emerging environment, and plan and pilot test innovations, in order to link the organization and the vision. It also requires empowered staff. That is the adaptive response, and involves working within existing patterns.

The more difficult question is: Is it possible to change an existing organizational pattern? Patterns are long-lasting ways organizations and societies have of behaving. Given this kind of stability, is it rational to think that patterns can be changed? Edgar Schein (1985), the wise man of organizational culture and Osborne and Plastrik (1997), the gurus of Reinventing Government in the USA, have suggested that it *is* possible to change organizational culture. The examples of the patterns that we reviewed also demonstrated several cases of employees and managers changing the culture within their work group.

Once government managers decide they want to design an innovative pattern - that they are in the

business of innovation - they face a demanding situation. How can they understand and support individual innovators? How can they deal with the challenges to success and the obstacles that must be overcome? How can they create an environment that supports innovation?

The Individual Level

Managers need to recruit innovators and nourish them. Likewise, a manager who wants to innovate must put an appropriate team together and nurture it. If and when she decides to recruit innovators into her unit of government, how will she know who they are? What is the profile of an innovator?

Understand the Profile of an Innovator

The characteristics of innovators in government can be described in five main areas.

Innovators have self-knowledge. Based on self-examination, innovators know what they are good at and what they are not so good at doing. This knowledge helps them to understand where they need help in developing an innovation.

Innovators are constantly learning. They ask silly questions, are curious, find out what others have done, and explore, like a child. They also learn from mistakes. They take risks, disagree with the established wisdom of the organization. Constantly asking irreverent questions, playful, they ask why, why not, how might we? They suggest ideas for improvement. Prepared to lead, they are confident about their ideas.

Innovators are not guided by convention but by values, taking responsibility and setting targets. They trust others and do not spread damaging rumours.

Career progression is not a main objective. They are willing to disagree with people and feel free to invent new ways to do things.

Innovators do not think like other people. From within the culture, this is considered suspicious behaviour at best. For the benefit of the organization, the culture, and innovation, having people who *can* think differently is a tremendous asset.

Even if innovators are a little different from other public servants, they still need personal support and the nourishment of an excellent organization to support them.

Support Innovators and Use Collaborative, Empowering Approaches

Supporting innovators also involves creating a culture that is more accepting of risk. There is a

Profile of Innovators

- self-knowledge
- constantly learning
- not guided by convention but by values
- career progression not a main objective.
- do not think like other people

need to create incentives for risk associated with innovating. Innovators who have accidentally crept into the system and not become discouraged are ensconced in their warrens, imagining and testing new ways of doing things. They and their managers have already, in many cases, assumed the risk. The system needs to reward them for doing so. It also needs to make it possible for others to do the same. The temptation may be to try to force innovation, to locate it somewhere and put somebody in charge of it. But innovation, like love and gardens, does not respond to pressure. Innovation is a matter of nurturing and supporting innovators, not one of trying to create innovation where there is no room or interest in it.

Instead, mechanisms and means must be found to empower innovative staff—and not just individuals. Innovation needs collaborative processes, the benefit of many different minds, skills, and perspectives working in a positive and nurturing environment.

One of the ways in which governments and managers demonstrate their support of innovators is through their willingness to allocate adequate resources to innovation- or maybe directly to innovators. Innovation needs resources: people, money, information, like many other endeavours.

At its best, empowerment involves the combination of delegation of power, motivational enablement, and employee participation in decision making about resource allocation and human resources. It especially allows staff to control their personal work environment (Introduction). Empowered staff have power.

Challenges

Managers can be of considerable help in dealing with resource and other challenges by planning change, managing with excellence and addressing challenges. Planned changes should recognize the power relationships that result from the changes. Without an understanding of broader impacts, innovation results could be contrary to the objectives initially established.

Use Planned Change Strategies to Encourage and Formalize Change

The importance of ideology in innovation cannot be ignored- innovation happens in a political context. Innovative organizations plan for it and build it into their capacity. Business plans include implementation strategies. Major changes in political and bureaucratic agendas

How Can Organizations Meet Challenges?

- Nurture innovation
- Accept risk-taking and failure
- Secure ongoing political support
- Be ready
- Use planned change strategies
- Create a culture of excellence
- Support innovators
- Empower staff
- Use collaborative approaches
- Use innovation tools
- Consider the ethics of the innovation, and its impact on equality and inequality
- Use—and be careful with—whole systems approaches
- Address the innovation dilemmas
- Think from many perspectives, with several paradigms
- Think about the future.

create the context and the content for innovation to happen.

Major change agendas offer the time and capacity to consult widely in creating innovations. As a result, they have the potential to meet real needs in a manner acceptable to clients and providers.

Create Excellence for Effective Implementation

To reduce the risk of failure and to increase the incidence of success, innovators need the support of excellent management, a professional approach, a supportive work environment, a learning organization, and other components of excellence.

Innovations should be introduced in a timely manner, add value, and pay political dividends. Supportive leadership and competent, innovative staff are a prerequisite. The capacity to get the basics right is crucial: from effective program design and implementation, to evaluation and measures of success and failure. Both output and outcome-oriented outlooks are key.

A chief characteristic of a culture of excellence is its capacity to learn. This means that it creates learning mechanisms, and methods to capture and share learning. Organizations aspiring to grow a culture of excellence identify innovations, make them known, implement them, and celebrate their success. Some celebrate the learning from failure. The Reinventing Government Initiative in the USA, for example, showcased best practices in the public sector. Learning can be created, captured, and shared in many ways. Networks are an especially effective mechanism for learning, and are empowering of staff.

Address Challenges

It helps to address four challenges explicitly: how to build support, how to get going, how to be both efficient and innovative, and how to keep clear heads.

How to Build Support for Innovation. The support of four key groups is needed, in order to permit innovation: the government in power, management, employees, and stakeholders outside the government (suppliers, clients and the public). Particularly in a climate of uncertainty and restraint, governments want to know the costs of innovating and what the innovations will accomplish. A champion of innovation, therefore, needs to be in a position to describe the costs of not innovating—as well as the costs of improving efficiency.

The support of **four key groups** is needed: the government in power, management, employees, and stakeholders outside the government (suppliers, clients and the public).

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Only employees' full support makes widely distributed innovation happen. Intrinsically motivated employees will support innovation if they can believe in it – for example, that it can improve either their own work environment or the product or service they provide for their clients - in other words, if it will make things better. They need an environment that encourages self-knowledge, risk-taking and constant learning. Sufficient time and resources to do innovation well must also be provided. Balancing the recognition of the expertise, loyalty and values of long-term employees with an appreciation of the freshness of new employees and their new ideas would help. Together these ideas should support the creation of intrinsic motivation.

A positive environment for innovation in government will not develop overnight. Consider the barriers: Bureaucracy does not usually favor innovation. The new public management, which has introduced a good deal of change in government, has typically only supported a narrow type of innovation, the diminution of government. Innovation awards tend to focus on cost-savings and efficiency. A more open environment for innovation of all kinds, and which addresses both policy and administrative changes, is needed, but it must be sought.

New practices can be introduced through pilot and demonstration projects. Organizations outside government can be funded to systematically explore what others are doing and what impacts new ideas have, on a small scale. These are Stuart Conger's (2002) *social invention centres*. Or, government departments can be mandated to try new things. While ministers and senior executives might be anxious to make good ideas into universal programs right away, the advantages of superior programs will soon become apparent. Reduced political embarrassment, decreased need to defend failures would soon become an obvious benefit.

How To Get Innovation Going. It is one thing to decide to be in the business of innovating, quite another to get a stream of new ideas flowing. One approach is to encourage constant learning. This is something you can do. Create permission for risk-taking. Improve both the climate and the capacity for risk-taking. Inspire despite uncertainty. Hire new employees, make efforts to gain support for and use their ideas. Avoid leaving people out—for example, *techno-peasants*, those who are not competent with new technologies. Balance the freshness of new employees and new ideas with the wisdom of experienced staff. Improve the climate for increasing self-awareness.

Change the environment in other ways. Take on the challenge of changing legislation that needs changing. Invest resources adequately in innovation. Help public servants transition during downsizing—to new careers, to learn new jobs. Reduce the cost of efficiency to employees.

How To be Both Efficient and Innovative. An innovative organization must create value. How can an innovator be sure the innovation will contribute value? Innovation contributes through what it does best - creating a greater variety of solutions to problems, challenging unwarranted assumptions, identifying problems and seeking problems. Any organization which does this more will function more effectively and more efficiently.

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How To Keep Clear Heads. One of the chief tools of someone who sees things as they are rather than how they should be or how they might be, is a critical thinking capacity (Glor, 2003). This can be hard for an innovator who often must put enormous amounts of effort into promoting an innovation and is frequently tempted to over-sell innovation as a result. But the committed skeptic makes an effective innovator.

The way individual innovators are treated and the manner in which challenges are faced contributes to the organization culture. The culture can also be addressed directly.

The Group Level: Address the Organization Culture

Managers have an impact on culture, more so than do working level staff, who also have an effect. Whether managers act in a top-down or a bottom-up fashion has a big imprint on culture. Managers who support innovation consider the whole organization, and society too.

Act From a Whole Systems Perspective

Attempting to intervene in a whole system, whether it is an organizational culture, administrative policy, organizational structure or a society, is a challenging task. All of the people of the organization and its stakeholders must be involved, and most must become convinced that change is needed. They must agree on the form it should take. A democratic organization, like a democratic political system, is messy, inefficient in its processes, does not always maximize efficiency, but it is often effective in achieving results, and above all, it has the capacity to change. Because it can adapt, it has a much better chance of surviving in the long term. It is more likely to serve the public well than an organization and a society that are elitist, hierarchical, and authoritarian (Putnam, 1993).

Do Ethical Systems Intervention

A word of caution is also needed about trying to intervene in systems. Interventions in systems are by definition large-scale and can have major, unexpected effects. Organizational systems, like ecosystems, have a certain undetermined amount of capacity to shift and adjust to changes and maintain a balance. Pushing them beyond those limits can have unpredictable results. Just as the effects of human harvesting suddenly exterminated the herds of buffalo, the whale populations and the cod off the Grand Banks, so we can catapult our institutions and social systems into disorder or vicious cycles. The knowledge we have can be misused, so we must be careful to act ethically at many levels – individual, group, systemic, societal, ecological and global levels.

The Key Role of Empowerment

If the basic premise of this book is correct, namely that continuous innovation is not just a matter of good management, but that it is also a question of active employee, client and citizen participation, then empowerment is an essential prerequisite of innovation. The structure of

bureaucracy, with its top-down decision-making and authority-giving processes, is in that case an impediment to innovation. Bureaucracies are not the only top-down organizations, however. Many small and large businesses are run in highly authoritarian manners, for example. The key element of support to innovation is a participative, democratic workplace and society. This is not small change from existing practice. As level of education increases and a knowledge society develops, it is nonetheless the direction in which we must move. To achieve these changes requires not only tools, processes and policy changes, it requires a change in patterns of functioning, in other words, of organizational culture.

How Do Patterns Change? Patterns Within Patterns

I hope that I have convinced you that a unique activity, innovation, occurs in patterns, and that I have given you some useful tools to deal with the three major factors that form the basic patterns. I would now like to demonstrate one additional way in which this approach is useful, in beginning to understand not what the patterns are, our previous focus, but how the patterns change.

Consider some of the categories that innovation analysts today offer for describing innovation. They group innovations under concepts like responding to crisis, focusing on prevention, frustration with the status quo, emphasizing results, adapting technology, and doing the right thing (Walters, 2002). Walters used these categories to group how American Government innovation award winners implemented their innovations, and what motivated them. They are, in other words, innovation patterns.

Let's look at some examples. Walters highlights the following innovations that were introduced in response to acute crises:

- Environmental conditions at two Seattle landfills were so horrendous that they had to be shut down, leading to the Seattle Recycling Program.
- After a disastrous oil spill near Jacksonville, the Florida Department of Environmental Protection introduced a geographic information system (GIS) to help it manage crises in its waterways.
- Spurred by the death of a young man who had fallen into a mine, an Arizona program was created to find and close abandoned mines.

Walters points out the distinction between programs like these, that were created in response to preventable crises, and ones that prepare for and attempt to blunt the effects of inevitable crises. Some examples include:

- Following six infant and toddler homicides in 1998, the Mobile County, Alabama, District Attorney's Office introduced a means for parents, mothers in particular, to give away newborns without fear of prosecution. Thirty-five states have adopted similar programs.
- Because there are hundreds of thousands of deaths and injuries each year due to preventable medical errors, the U.S. Department of Veterans Affairs created a means for staff to report medical mistakes, voluntarily and confidentially. The objective of the program was to find bad systems, not careless people.
- Precipitated by a high worker death and injury incidence, the Occupational Safety and

Health Administration introduced a pilot in Maine, called the Top 200 Experimental Targeting Program. Particularly dangerous industries were targeted for more-than-usual attention.

- Because of periodic cases of widespread food poisoning, the U.S. Department of Health and Human Services introduced the PulseNet program to identify outbreaks quickly so that persons suffering from poisoning can be treated quickly and correctly. These innovations were introduced to prevent disasters, but in the right climate programs are introduced to prevent other kinds of problems besides.
- In order to avoid much more expensive institutional solutions, the Block Nurse Program was created in St. Paul, Minnesota, to provide home-based care for elderly people.
- To extend health insurance to all children, Florida introduced the Healthy Kids Program. It served as a precursor to the federal Children's Health Insurance Program (CHIP).
- In order to improve socialization and achievement, and to lower costs, Georgia introduced the Voluntary Pre-kindergarten Program that offers every child in the state access to early education.
- Instead of a more punitive strategy, Case Management for At-Risk Children takes a comprehensive, social services approach to dealing with kids who would otherwise be placed in juvenile detention.
- In order to reduce teen pregnancy, Illinois introduced a comprehensive, statewide Parents Too Soon program, providing a health, social and educational program for males and females.
- To aggressively preempt gang violence, a host of players in the city of Boston joined in an effort to identify and defuse gang violence before it starts. Operation Ceasefire programs now operate all over the USA.
- Massachusetts worked with manufacturers to prevent pollution through its Toxics Use Reduction Program.
- To break the cycle of welfare dependence, the Illinois Department of Public Aid created a pilot to work intensively with single women, Project Match. Reforms in 1987 created a statewide welfare-to-work strategy based on these principles, the Wisconsin Works Program.⁴⁶

Walters does not offer any suggestion nor do his categories shine much light on why the innovations tend to group around his patterns of implementation and motivation. Some of the patterns could, in fact, be considered opposite poles on a continuum: responding to crisis might be seen as the opposite of focusing on prevention, for example. What can we say about the patterns of innovation from these examples? Two points are noted here.

What struck me, and Walters identified this as well, is that the innovations tend to repeat, rather than to grow and improve. Walters noted that similar innovations are nominated over time,

⁴⁶ The Canadian government funded a similar pilot in one province, New Brunswick, called New Brunswick Works. It was abandoned because of high costs combined with limited benefits.

such as dealing with youthful offenders, serving chronically sick people in the community instead of in hospitals, and focusing inspection programs on bad actors. Of interest to me, was that I had seen versions of the innovations described by Walters implemented in Saskatchewan during the 1970s and 1980s, in response to similar problems. Saskatchewan had, for example, introduced a provincial child and youth safety committee. Although it did not look at mines specifically, it served the same function as the Arizona program, it successfully dealt with the major killers of children and youth; at that time the most important was vehicle accidents. Saskatchewan tried a more interesting innovation—combining all the functions of workplace inspectors including inspecting boilers, electricians, elevators and apprenticeship programs. They were not completely happy with the results, but they tried the approach. In these programs employers who consistently evaded the rules were emphasized. Targeting employers with bad records has been a long-standing inspections strategy. Community-based public health nursing had been available in western Canada since the 1920s, until the cuts in public health programs began in the 1980s. Saskatchewan has had a province-wide hospital insurance program for everyone since 1946 and Canada has had a national program since 1957. Pre-kindergarten programs have been available in most urban schools for at least twenty years. Integrated case management programs have likewise been around for twenty years. The Saskatchewan Social Services Department proposed a much more fundamental change to dealing with juveniles in conflict with the law that would have cared for incarcerated youth in the community. It was not approved. Saskatchewan introduced a school-based reproductive health program pilot in 1980. Saskatchewan also had an Employment Support Program that provided community-based work programs for people on welfare.

So, what does this mean? It means several things. Every community and every nation (every culture) does not deal the same way with issues at the same time, they are not all the same in terms of what they are willing to try. Some are more progressive, some have different values than others. In social service, labour and education programs, for example, Canada might be ahead of the USA. On environmental programs the USA might be ahead, though Canada has committed to the Kyoto Agreement, while the USA has not, and the federal American government is now cutting environmental programs. So, it is hard to say for sure. Both Canada and the USA have their innovators and their laggards.

Above all, it means we do not track and evaluate and share information about innovations well. Is this because we don't care, because we do not want to be compared to other jurisdictions, since we think we might compare unfavourably, or what? More fundamentally, this information means we have not dealt effectively with most of these issues: they are still around. Is this because we do not care about health, children dying, and poor people?

While this may be true to some extent, reinforced by the physical separation of the rich and the poor, probably the most important issue is that certain governments consistently follow the pattern of waiting until something is a crisis before acting and others regularly and systematically attempt to prevent problems. How have some communities and governments come to a consensus to shift the pattern from responding to crises to preventing problems? Let us see whether the framework presented in this book can illuminate this question by considering these two categories of reaction and prevention within the context of the three factors of motivation, challenge and culture.

Crises can be considered a means of intervening. They are effective at creating the motivation to act on an issue. The urgency of the situation can overcome the limitations of extrinsic motivation, and temporarily create intrinsic motivation, by creating links to such intrinsic motivators as caring for the safety of other people. Challenges, such as lack of permission and resources, are either quickly authorized or ignored. The crisis thus makes innovation possible and likely when it would not otherwise be so. In other words, the crisis temporarily engages people as if motivation was intrinsic and challenges were minor. But what is the culture that leaves things until they are a crisis as opposed to one that deals with them when they are (or acts as if they are) preventable?

One element of this culture is its values. Perhaps there is a conflict of values. If the culture does not emphasize prevention of harm to people, perhaps it emphasizes instead such qualities as independence, self-sufficiency, freedom, small government and frugality. While such values are doubtless a factor, a hierarchical approach is also important. The essence of a hierarchical culture is that permission must be given, or things cannot happen. In this environment, usually only those at the top of the hierarchy can be proactive, and others on the rungs below must be responsive. If one person must initiate everything, or at least approve everything, the ideas considered and the decisions taken are limited by the knowledge and values of one person, a bottleneck is inevitably created, and communication is reduced. This environment of scarcity cannot act on a great many issues, and so tends to be reactive. The reputations of governments and large companies for being reactive grows at least in part out of their hierarchical approval and communication systems. These organizations change little, and only when they must, i.e. when there is a crisis.

Some organizations, like 3M, Semco Corporation, the Grameen Bank, the governments of Saskatchewan, Ontario, Alberta, British Columbia, California, Ohio and Minnesota, have had some success in overcoming this lethargy. Minnesota, for example, created (then abolished, with a change of government) an innovation unit within the government. So did the government of Singapore. Each of these organizations has created cultures that proactively try new things all the time.

If this is the case, then the culture in which crises are likely to be used to induce action may be top-down while one which emphasizes prevention may be more likely to be a more democratic, bottom-up culture. The number of new ideas that can be generated by a large number of people is more than what can be generated by one person or a few people. Thus the creativity of ideas will be greater in a bottom-up culture. Moreover, as the authors discussed in the first part of this chapter indicated, there is more complex interaction among more people, and the potential for creating Nonaka's knowledge spiral that creates continuous innovation is greater.

Conclusion

This book has attempted to open up discussion of innovation by inviting consideration and application of several aspects of innovation in organizations, including the innovation process and the factors that create the context for innovation. This pragmatic approach to implementing innovation, an admittedly difficult and complex task, has potential for more objectively and effectively addressing issues and for allowing government and society to assert some control over

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current events. Inherent in this approach is a sharing of power and building of partnerships rather than the alternating dominance of political, electoral and leadership majorities.

In order to keep pace with competitors in the ecology, whether private, non-profit or government organizations, and to avoid obsolescence, organizations need to change more quickly, innovate more, and innovate more fundamentally (I hereby reveal again my pro-innovation bias). Institutions currently provide verbal support for innovation, especially during downsizing and when initiating efficiency enhancement programs, that is, variety-reducing exercises. Innovation appeals to leaders and trend-setters, but the appeal tends to be symbolic rather than substantial. Typically the barriers have not been overcome and objectives have only partially been achieved at best. The elements, processes and skills that are needed, and the values and culture that support and encourage innovation, are often not put in place. The magnitude of change required today demands not just a willingness to change but that administrations self-organize for innovation that will improve the well being of individuals, organizations, the public and elected and appointed officials. Like the private sector, the public sector should be putting in place the research, demonstration and cultural and pattern change necessary to make innovation not just possible but planned, part of the organization and legitimate.

All this said, can *Innovator as Gardener* claim that it has identified what is key to successful innovation? Yes and no. This book has identified some of the factors that came together in innovative workplaces. The

combination of will and opportunity that created the desire and an openness to innovate would look different somewhere else, but would be recognized by those living it. This guide has also identified some patterns. It has suggested that both will and responsiveness are necessary to enhance innovativeness. Research is needed to test the propositions that are made and used. A powerful theory, as opposed to a weak theory of innovation, would be able to predict which governments would be innovative, and the impact of innovations. We are not able to do so, with individuals or organizations, including governments. This failure is not restricted to innovation–human behaviour remains unpredictable, even where patterns can be recognized. Looking for and thinking in terms of patterns should, nonetheless, be helpful to the manager and the employee who wants to innovate more.

Can *A Gardener Innovator's Guide* claim that it has identified what is **key to successful innovation**? Yes and no.

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