Leadership for a Networked World



Strategic Diagnosis for Government: Getting Your Bearings in the Information Age



THE HARVARD POLICY GROUP ON NETWORK-ENABLED SERVICES AND GOVERNMENT

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PREFACE

As we proceed more deeply into the 21st Century, virtually everyone from futurists to the general public has observed that information technologies are changing our patterns of social, commercial, and political interactions. These changes raise both profound opportunities and threats for people around the globe. It is a revolutionary period, with critical issues at hand that are not yet fully understood, let alone resolved.

Throughout this period our public leaders—including elected and appointed officials and their overseers in all branches of government—have too often ignored technology issues, or excessively delegated them to others. The conventional wisdom has been that technology is either not very important, requires technical expertise rather than leadership, or is simply too risky for leaders to get personally involved.

These views are changing, however. Due primarily to the astonishing growth of the Internet and its applications, technology is now widely acknowledged as a critical force in shaping the future. The need for skillful and committed leadership has become obvious.

But the risks are still there.

As a result, public leaders—often under enormous and competing pressures—remain uncertain about how to successfully engage in the issues related to the applications of information and communications technologies.

In response to these developments, the Harvard University John F. Kennedy School of Government assembled a group of distinguished public leaders to explore what is being learned about computer and telecommunications technologies and their impacts on the roles and responsibilities of government.

The Harvard Policy Group on Network-Enabled Services and Government (HPG) includes legislative and executive leaders, private-sector and public-sector leaders, technology managers and general managers, and public officials from federal, state, and local governments in the United States and Canada. Meeting together for three or four sessions per year since 1997, the HPG has concluded broadly that the time is ripe for public leaders to engage in information technology issues more directly, deeply, and successfully. To improve the quality of that engagement, the HPG has published a series of guideline papers for those who seek to lead in this critical period.

The report you are reading explores *Strategic Diagnosis for Government: Getting Your Bearings in the Information Age.* With pragmatic guidelines and concrete examples, it explores and explains how leaders can identify critical emerging threats and opportunities in a much more timely and effective manner. While this will require strategic thinking and shrewd assessment of risks and returns, it will not require costly investments or consultants. Strategic diagnosis is what is needed to understand problems correctly before you commit to major investments.

The work reported here was made possible through a partnership involving the Kennedy School of Government, IBM's Institute for Electronic Government, Booz Allen Hamilton, Microsoft, and SAP. The views in this paper are those of the individual members of the HPG and not the institutional views of their home organizations or project sponsors. However, it would have been impossible for the group to learn and to produce what it has without the opportunity to meet together and to share insights over an extended period of time.

We sincerely hope that this paper will prove helpful to public and private leaders and also to the public at large.

The Harvard Policy Group on Network-Enabled Services and Government Cambridge, Massachusetts March 2005

Jerry Mechling, John F. Kennedy School of Government

INTRODUCTION

As a leader, getting your people to respond to change is a critical challenge—even *the* critical challenge. In the private sector, of course, if you wait too long, you miss the boat—look at what happened as the Encyclopedia Britannica ignored the CD revolution.¹ On the other hand, jumping prematurely can also be deadly—look at IBM and Sears with Prodigy, or the many failures of new ventures in general.²

In the public sector, responding to pressures for change can be even more daunting. Large government organizations are typically slow to adapt. This has long been true. However, the challenges have become even more problematic as knowledge and communications explode, leading to dramatically new forms of organization.

To succeed, leaders today need early diagnosis of strategically important developments. In most cases, this diagnosis does not need to be very detailed. It must, however, allow you to gain your bearings early enough to organize a proper response. Your people will need to understand how things "out there"—including information technologies—may require a shift in your "in here" strategy and structure.³

What follows will explore this problem and present some promising solutions. We believe that the kind of analysis recommended here—what we call strategic diagnosis— needs to be understood and aggressively incorporated by line and staff decision-makers throughout governments everywhere.

Governments ... are blind to change.

THE PROBLEM: SEARCHING TOO LATE, AND IN THE WRONG PLACES

Given the well-known difficulties of innovation in government, can it *really* be true that early strategic diagnosis—including a search for IT-related opportunities—is a critical missing ingredient?

Absolutely! Early diagnosis is often overlooked and is especially important where ITrelated changes put much at stake (as in government), and where diagnostic procedures are poor (as they often are in government).

We don't do enough early searching, given the high stakes. For many years, theories have suggested that IT-based reforms could dramatically improve productivity (outputs produced per unit of resources consumed). Analysts have recommended using IT for remote and asynchronous service (less travel, fewer meetings), for self-service (less need for staff support), and for front-line empowerment and even outsourcing rather than traditional hierarchical control (less bureaucracy).⁴

Until recently, however, it has been hard to find widespread evidence of success from ITbased investments. This was the "productivity paradox"—lots of technology in, but not much productivity out.

Things have changed. Recent research attributes about half of the much higher-thannormal productivity growth of the past dozen years to computerization. To be sure, productivity is not guaranteed, and many projects fail. Even successful projects may require many years to produce measurable results. Also, governments so far have used computing largely for "24x7" accessibility rather than cost-cutting. Still, evidence pointing to the productivity potential of IT is clear.⁵

Further, productivity is not the only issue of importance. In government, productivity is often of less concern than equity (fairness) or legitimacy (using power to promote the public interest rather than special interests).

Given the enormity of the changes now underway, both equity and legitimacy are at stake. As the world becomes more heavily networked, equity could either get better (as more people gain access to network-based resources) or worse (as the growing gap between rich and poor over the past thirty years seems to suggest). A networked world also raises issues of legitimacy (with a need to rethink who should be included in the community and how to resolve tensions between individual and community rights).⁶

As we move further into the information age, fundamental values will be dependent upon government's ability to adapt—i.e., to sense and respond to new possibilities raised by IT. But will agility come primarily through better sensing (strategic diagnosis) or better responding (effective translation of insights into action)?

Both, of course, could help. Diagnosis, however, offers arguably the most leverage. Small resources for early diagnosis and direction-setting could improve results more efficiently than downstream corrections muscled into place after the system has gained momentum.

Unfortunately, governments focus on heads-down internal problem-solving more often than on heads-up analysis to get their bearings. Given the high stakes, not enough attention is given to strategic diagnosis.

We tend to search in the wrong places. Once governments do turn to diagnostic work, they put most of their energy into three standard routines: the budget process, the IT planning process, and traditional top-down bureaucratic oversight. Unfortunately, each of these is typically flawed.

The problem with budgeting is it focuses too heavily on program-by-program costs next year for carrying out this year's activities, plus or minus adjustments to balance the budget. But where are the most valuable IT-related investments likely to be found? These will commonly: a) involve cross-program integration; b) extend over multiple years; or c) require innovations, not just more or less for current routines. Thus, the "search" in budgeting is basically a "heads down" activity. It tends to miss many of the big "out there" opportunities.⁷

The problem with IT planning is that it focuses too heavily on IT itself. While chief information officers (CIOs) have in general brought IT issues to senior-level decision-making, the IT planning process typically stays close to "home base," rarely wandering into what is seen as the brambles of organizational strategy, structure, or workflow reform.

Finally, the problem with bureaucratic oversight is its reliance on hierarchical authority to enforce the existing rules. To be sure, rules are critical for governance. However, an overemphasis on hierarchy and rules can leave the organization blind to the external world and to possibilities for innovation.

* * *

Governments that search too late and in the wrong places are blind to change. While early diagnosis alone will not solve these problems, it's certainly a good place to begin.

Both experience and skill are required to make good judgments about how stakeholders will react.

WHAT TO AVOID: EXTREMES OF DELEGATION AND GOING IT ALONE

So, what if leaders want better diagnosis? What are the likely problems once the need is recognized? Two of the most common are excessive delegation to the technology community and—at the other extreme—excessive isolation and control within a trusted inner circle.

Excessive delegation. At its core, strategic diagnosis as explored here is about how IT fits with other factors to change the institution's strategy. This requires judgment calls. Given what is known about means and ends, about stakeholder preferences and powers, about risks and returns—*about everything*—what is the best route forward?

Answering this question requires *political* analysis. The most important judgments are about people, not technology. Even when technology is critical, political intuition is usually paramount. Therefore, though diagnosis may not require much in the way of money, time, or effort, it does require the active engagement of senior leaders and those they trust.⁸

In many governments, however, *once technology is involved*, the problem is classified as a "technology problem." It is delegated to the technology staff or consultants. The resulting analysis centers too much on technology, and too little on stakeholders and strategy.

Excessive delegation to the IT community is thus a problem. To curb it, leaders can carry out IT-related analysis within non-IT contexts. They can focus on IT opportunities within the budget process, the "state of the state" (or city, or nation) speech, union negotiations, or the legislative agenda.

Another protection is to take advantage of an inner circle of trusted associates. Diagnosing opportunities for using IT can be improved by making sure that one or more of the people in the inner circle has a strong personal grasp of IT-enabled institutional change.

Excessive going it alone. If the inner circle is too narrow, however, the very confidentiality that makes it a comfortable and trustworthy group can result in too much isolation.

It's natural, of course, for controversial ideas to be tried out first among trusted friends. For strategic diagnosis, however, analysis needs the realism that comes from touching base with a broad spectrum of stakeholders. Diagnosis needs to gauge conflicts, including the motives and strengths of potential opponents. Diagnosis also needs to gauge confusion, including how to reduce it in order to increase the effectiveness of supporters.

In general, experience and skill are required to make good judgments about how stakeholders will react. In a changing environment, to make such judgments well, leaders need to reach beyond the inner circle. As much as they need to avoid excessive delegation to the technology community, they also need to avoid excessive "going it alone."

... throw analytic light in many directions, not just straight down the road.

WHAT TO DO: GAIN LEVERAGE THROUGH STRATEGIC DIAGNOSIS

If too much "heads down" cripples strategic analysis, what's to be done? How can you strike the right balance between technology-related and other ideas? How can you sense and respond effectively?

A good beginning is with limited but well-positioned resources for strategic diagnosis. As diagnosis, this work is about getting the problem properly defined. As strategy, it's about clarifying the big picture and not getting distracted by details. You need to help your institution throw analytic light in many directions, not just straight down the road. Relatively frequent diagnostic work can be essential for keeping your institution on course.



Figure 1: Leaders need to periodically diagnose their strategic direction

It's about getting your bearings.

GUIDELINES: USE YOUR INTUITION, VERIFYING AS NEEDED

Strategic diagnosis does not typically require a \$300,000 study. It's what you can do <u>before</u> spending a lot. It's about getting your bearings.

Here are six steps for sensible strategic diagnosis, with examples.

1. Lift your head to engage your intuition and use accessible information

Problem

Within government, there's a dangerous tendency for analysis to be trapped by the bureaucracy. The result is a "heads down" focus on internal issues that misses the big picture and strategic shifts.

Solution

Take some time to lift your head up. Counter bureaucratic bias by looking outside. To the extent you can, make your values and mental models explicit. Talk to people who are trying out new ideas. Look for what's visible from 10,000 feet, not just what's seen from the daily roadway.

Examples

Agenda setting in new administrations. Analyzing possible shifts in direction is often pursued during the first months of a new political administration. During that period, people try to establish their most important priorities. In most cases, enterprise-wide reforms *must* be initiated early in an administration's tenure or there won't be enough time for implementation.⁹ Through the President's Management Agenda and, before that, the National Performance Review, both the Bush and Clinton administrations took early steps to put IT-related reforms high on the management agenda.¹⁰

Scenario-based planning. As President Eisenhower stated, "Plans are worthless, but planning is everything." It's about analyzing scenarios to prepare for greater agility in a changing world. Especially since the terrorist attacks in Oklahoma City and on 9/11, governments have turned to "table top" and other planning exercises to sense and prepare for a broader array of "out there" challenges.¹¹

Professional associations and "lessons learned." Associations can be great resources for knowing where you stand and identifying new practices. Rapid change makes benchmarking more important than ever before.¹²

2. Develop plans through ends-first and means-first searches

Problem

While strategies must ultimately link ends and means, governments tend to put too much distance between the two. Ends-oriented strategic planning thus misses how technology can help, and means-oriented technology planning misses strategic relevance.

Solution

A key for governments is to put the strategy people and the technology people closer together. Insert those who know technology into budgeting and other planning processes. Insert those with political and program knowledge into technology planning processes.

Examples

Technology in strategic planning. The most important step is getting a CIO who can serve as an effective member of the senior management team. Instituting new routines can also be helpful. Consider requiring program, budgeting, human resources, and other planning processes to review IT-related reforms.¹³

Institutional strategy as an element of IT planning. Since strategic thinking is often not written down, inserting it into IT planning requires getting the general managers who shape strategy directly involved. Such planning can be valuable, as the federal government has found out with requirements for business case analysis.¹⁴

3. Touch base with "critical mass" stakeholders (not just your friends)

Problem

While it's natural for strategic diagnosis to rely on friends, it's dangerous if the reference base is too narrow. Good ideas "out there" can fail if the negotiations for implementation are not properly assessed in the adoption process.

Solution

Touch base with the critical mass of stakeholders needed for ideas and assessing feasibility. Since estimating support, opposition, and feasibility often requires

confidential meetings, involving stakeholders is an expensive part of strategic diagnosis, at least in terms of the effort required of senior leaders.

Examples

Singapore. The Singapore government—and Asian cultures more generally—are known for extended conversations to assess and build support before making decisions. Decisions, once made, however, then unleash rapid implementation (to produce value as quickly as possible). This has sometimes been called the "slow trigger, fast bullet" process.¹⁵

The "stakeholder spreadsheet." A spreadsheet can be a stakeholder assessment tool if the rows contain options analyzed and the columns contain people (or stakeholder groups) involved. Using this framework, analysts can be required to fill in the cells with a description of the degree to which each stakeholder is expected to support each option. Developing the spreadsheet makes stakeholder assessment an explicit part of the diagnostic process.¹⁶

4. Estimate a full range of risks and returns

Problem

While good decisions balance a full range of risks and returns, government IT decisions tend to be dominated by direct costs to the government. Relevant other criteria such as indirect costs, risks, and benefits to outside stakeholder groups are widely ignored, or downplayed because they're too uncertain or too political. With these elements missing, analysis is not as helpful as it could be.

Solution

Effective strategic diagnosis requires explicit (perhaps even quantitative) estimates of returns and risks. Even if early estimates are quite uncertain, something beats nothing. What's needed is a thoughtful basis for action or further analysis.

Examples

Harvard workshops. Since 1987, the Harvard University John F. Kennedy School of Government has run workshops to help government leaders resolve information technology issues. These workshops have required participants to evaluate a dozen or so options on each issue studied. In evaluating the options, participants use a five-point scale to estimate their institution's present degree of involvement, the net value expected if the option were to receive additional resources, and the degree of conflict and confusion to be overcome during implementation (a measure of risk). Even such "off the top of the head" estimates have generated instructive debate and practical guidance.¹⁷

OMB Exhibit 300 (capital asset plan and business case). OMB Exhibit 300 provides a means for federal agencies to present a business case for major information technology investments. The form provides a disciplined approach for evaluating risks and returns and can be modified for a variety of government settings.¹⁸

5. Analyze only to the depth needed

Problem

While the goal of strategic diagnosis is better decisions, it can easily lead to confusion and avoidance. "Analysis paralysis" is a very real problem.

Solution

Try iterative analysis, going at any diagnostic pass only as deep as needed in order to reach a decision. Work through a full range of values and options to estimate risks and rewards. At any point, however, there will inevitably be uncertainties. Given these, decide whether further analysis is likely *to lead to different priorities*. If "quick and dirty" is good enough, go with it.

Examples

Deadlines. Deadlines are valuable tools against "analysis paralysis." The need to bring a diagnosis to high-level decision makers is similarly valuable, since time at senior levels is usually constrained. Making decisions on the best information available is usually better than waiting for (often unachievable) perfection.¹⁹

An organizational learning culture. Organizations committed to learning—and thus to sensing and responding to their environment on a continuing basis—tend to think of analysis as "for now" and not "forever." A "do it, try it, fix it" culture is an antidote to "analysis paralysis."²⁰

6. Synthesize and decide on an action portfolio

Problem

Once the analysis is completed, it may still be difficult to make a decision and pull everything into an action plan. If ideas are not turned into operational tasks and assignments, however, the outcome can be no vision, no accountability, and—ultimately—no results.

Solution

Diagnosis must lead to an action portfolio, theme, and plan. A portfolio can make room for high-risk elements by offsetting them with lower-risk elements. While some initiatives may be implemented separately, it will normally be best to market a portfolio under a unified theme and vision.

Examples

Portfolio management in the state of Washington. Washington has aggressively used portfolio analysis to look at the big picture, covering high-risk options with elements sure to deliver results that will sustain support for the overall portfolio.

A "bias to action"? In a turbulent world, survival requires trying new things. Government must, of course, avoid needless risks. But the greatest risk may well lie in a culture so anti-risk that it becomes impossible to explore new strategies for success. Politics must cultivate a "bias to action" that has become the goal of successful private sector institutions.

* * * * *

-Figure 2-Guidelines for Strategic Diagnosis

- 1. Lift your head to engage your intuition and use accessible information
- 2. Develop plans through ends-first and means-first searching
- 3. Touch base with "critical mass" stakeholders (not just your friends)
- 4. Estimate a full range of returns and risks
- 5. Analyze only to the depth needed
- 6. Synthesize and decide on an action portfolio

Use your intuition, verifying as needed.

Strategic diagnosis relies heavily on making the intuition and hypotheses of leaders visible and useful. The early views can be tested against available evidence and the perceptions of others inside and outside the institution. The desired result is an understanding of strategic threats and opportunities that can be turned into timely and effective decisions.

NEXT STEPS: GETTING STARTED WITH GETTING STARTED

Strategic diagnosis seeks to clarify the big picture options for using information technology effectively. Some guidelines for those wanting to walk the talk:

1. Get potential followers personally engaged in the process. Successful strategies in government ultimately rely more on the commitment of participants than the power of those in authority. Given checks and balances in the public sector, leaders need to become effective in using soft power and persuasion. Education, planning, and pilot projects offer perhaps the most effective means for engaging potential followers.

2. *Give participants feedback from both peers and leaders*. Strategic diagnosis and the innovation it explores are supported by social as well as cognitive processes. While people need analytic frameworks, they also need to know how their own thinking and actions compares to those of their peers. They also need to understand the personalities and commitment of the leaders they would be following if they decide to pursue a given set of initiatives.

3. Get started, remembering that strategic diagnosis is the <u>early</u> work, not the <u>only</u> work. Strategic diagnosis can often be done in a week or a month. If early diagnosis uncovers important possibilities, later iterations can be used to plan more thoroughly and to mobilize implementation.

* * * * *

Leaders must constantly balance continuity against change. Most of the time, they enforce and preserve institutional values and procedures. Less frequently—but more importantly—leaders serve as agents of change.

In the 21st century, a key challenge will be getting government organizations to become learning organizations. Governments need to sense and respond more effectively to changes in their environments. Strategic diagnosis offers a useful way to assess such possibilities for change. And, it's not expensive.

It can, however, be *extremely* valuable. We think you should try it...

APPENDIX A

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March 2005

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Note: Organizational affiliations and position titles reflect the professional status of HPG members and alumni at the time of their initial association with the group

APPENDIX B

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APPENDIX C

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¹⁴ Executive Order no. 13,011, *Code of Federal Regulations*, title 3 (1996). Also available online at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=1996_register&docid=fr19jy96-133.pdf.; U.S. Department of Commerce. "U.S. Departmental of Commerce Information Technology Capital Planning and Investment Control Process: Operating Unit Responsibilities."

http://www.osec.doc.gov/cio/oipr/doc_it_cpic_process_ou.htm (12 Jan. 2004).

¹⁵ Singapore has rich and deep experience exploring the use of society-wide innovations to take advantage of developments in information technology. These innovations are captured in three Harvard Business School case studies: King, John, and Benn Konsynski. "Singapore TradeNet: A Tale of One City." HBS Case No. 191009. Boston, Mass.: Harvard Business School Publishing, 1990.; Applegate, Lynda M., John King, and Boon-Siong Neo. "Singapore TradeNet: The Tale Continues." HBS Case No. 193136. Boston, Mass.: Harvard Business School Publishing, 1993.; Applegate, Lynda M., John King, and Boon-Siong Neo. "Singapore TradeNet: The Tale Continues." HBS Case No. 193136. Boston, Mass.: Harvard Business School Publishing, 1993.; Applegate, Lynda M., John King, and Boon-Siong Neo. "Singapore TradeNet to the Intelligent Island ." HBS Case No. 196105. Boston, Mass.: Harvard Business School Publishing, 1995.

¹⁶ See also: Management Sciences for Health and United Nations Children's Fund. "The Guide to Managing for Quality: Stakeholder Analysis." http://erc.msh.org/quality/ittools/itstkan.cfm (1998).

¹⁷ Mechling, Jerry, and Victoria Sweeney. "Overcoming Budget Barriers: Funding IT Projects in the Public Sector." Cambridge, Mass.: Strategic Computing and Telecommunications in the Public Sector, John F. Kennedy School of Government, 1997.

¹⁸ U.S. Office of Management and Budget. "Circular A-11: Preparation, Submission and Execution of the Budget: Part 7: Planning, Budgeting, Acquisition, and Management of Capital Assets."

http://www.whitehouse.gov/omb/circulars/a11/current_year/s300.pdf (July 2004).

¹⁹ William Vass, Vice President, Corporate Software Services, of Sun IT, discusses analysis paralysis: William Vass, interview in Boardroom Minutes: Government, Sun Microsystems.

http://www.sun.com/br/government_421/feature_lessons.html (2003).

²⁰ Bloniarz, Peter A., David R. Connelly, Sharon S. Dawes, Kristine L. Kelly, and Theresa A. Pardo. "Four Realities of IT Innovation in Government." The Public Manager 28, no. 1 (1999). Also available online at http://www.ctg.albany.edu/publications/journals/four_realities.; Peters, Thomas J. The Circle of Innovation: You Can't Shrink Your Way to Greatness. New York: Knopf, 1997.

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