

On Leading Horses to Water: Developing the Information Capacity of Governments

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ABSTRACT

While the managerial reforms of the public sector have been extremely important in shaping the public sector, other strands of reform and innovation have continued with perhaps less fanfare. In this paper, I will be looking at the development of means through which governments manage information, and especially how they use that information for public policy-making. Even though I do recognize the importance of improving the technology available within the public sector, and especially the value of information and communication technology, these technological "fixes" are not necessarily the answer to all our governance problems. Technologies still do not enable us to overcome human inadequacies in making policy or the organizational politics in the public sector that tend to at times twist the manner in which information is gathered, processed and utilized in making decisions. The basic argument therefore is that even if ICT makes information more readily available, it must still be sifted, evaluated, and then utilized by public-sector decision-makers whose individual capacities may not have been altered by the technology. Therefore, human judgment remains crucial to the processes of effective policy-making within the public sector, and the question becomes whether the technological advances have made major contributions to that policy-making capacity. The basic question therefore is whether the use of ICT in the public sector provides major contributions to governing, or whether this is just another fad like so many others that have been implemented in the past.

Keywords: public-sector reform; information technology; policy-making; coordination

1. Introduction

The public sector has always been involved in reform and change, but the past several decades have been perhaps the most rapid and extensive period of conscious attempts to "make government work better and cost less".¹ Generally parading under

¹ That term is the subtitle of the main report coming from the National Performance Review (Gore Commission). The only other period that may compare in terms of reform and reorganization in the public sector may be the period leading up to World War II (see Pollitt 1984; Arnold 2000).

the banner of the New Public Management (Christensen and Lægreid 2007), the reforms developed during these decades have tended to focus on making the public sector more efficient, largely by adopting management methods usually associated with the private sector. A second strand of reform being implemented during the same period emphasized the democratic nature of the public sector and attempted to encourage participation by employees of public organizations, clients, and the public at large.

While these reforms of the public sector have been extremely important in shaping the public sector, other strands of reform and innovation have continued with perhaps less fanfare. In this paper, I will be looking at the development of means through which governments manage information, and especially how they use that information for public policy-making. The focus for at least the past several decades in public administration has been on the management of public programs, so that the use of information may be directed less toward changing the content of policy and more toward simply enhancing efficiency.

Those managerialist reforms have been beneficial in many ways, but have had the (perhaps) unintended consequence of reducing the policy capacity of the public bureaucracy (see Peters and Pierre 2012). That policy capacity had to some extent been undermined by the increasing politicization of policy and governance (see Peters and Pierre 2004; Vanhoonaeker forthcoming) and the reliance on ideology rather than analysis as the foundation for making policy. Even leaving aside the continuing politicization of policy, it appears that much of the logic of the past several decades has been that management and efficiency were the central values for governing, rather than getting the policies right.

Public-sector reforms, and change more generally, tend to occur in cycles, going back and forth between two poles of dichotomies (Simon 1947). If the past several decades have represented the apotheosis of management in the public sector, then it is rather natural to expect some movement back toward an emphasis on the policy role of the public bureaucracy. This change is not just a mechanical function of having gone to an extreme in one direction, but also reflects the dysfunctions of having emphasized one set of values in the public sector over others.² One logical next direction for reform in the public sector then is to rethink the policy role of public bureaucracy.

These reforms in the public sector that are attempting to cope with policy issues are, of course, built around the recent history of managerialism in the public sector, and to some extent assume that many of the management issues within the public sector have been “solved”. Further, these reforms directed more at policy reflect the extent to which the downsizing of the policy capacity of governments has also eroded the capacity of governments to make effective policies for an increasingly complex and adverse policy environment.³ The emphasis on policy-making capacity

² Both sides of each dichotomy in public management has important virtues. Therefore, the attempt to improve performance in the public sector involves several positive values and the need to make the difficult choice among them.

³ One indication of this has been the denigration of many aspects of policy evaluation and their replacement with performance management. The latter attempts to assess how the public-sector functions are generally short-term and do not address many issues of the underlying designs of public policies.

within the bureaucracy, perhaps most obviously evidence-based policy-making, also appears to imply that the technological capacities of modern governments will provide the foundation for this capacity.

I am far from a technological determinist and indeed wonder as much about the dysfunctions of information processes and communications technologies as the advantages. This position is not that of a Luddite or even that of those scholars concerned about the dangers of technocracy (Ellul 1964; Meynaud 1964). Rather, the attempt here is to consider the ways in which information technology can shape human decision-making, and organizational behavior, in ways that are not actually conducive to good policy. Indeed, as the name of the paper implies, there may be a surfeit of water (information) but too few thirsty horses for effective policy.

This paper therefore will be somewhat contrarian, and is intended to be so. Even though I do recognize the importance of improving the technology available within the public sector, and especially the value of information and communication technology, these technological “fixes” are not necessarily the answer to all our governance problems. These technologies may be more important in the public sector than in many areas of the private sector⁴, simply because much of what government does is to process information. That said, however, the technologies still do not enable us to overcome human inadequacies in making policy or the organizational politics in the public sector that tend to at times twist the manner in which information is gathered, processed, and utilized in making decisions.⁵

The basic argument therefore is that even if ICT makes information more readily available, it must still be sifted, evaluated, and then utilized by public-sector decision-makers whose individual capacities may not have been altered by the technology. The information technology now available to governments is quite remarkable and can be extremely helpful in making decisions, but decision-making remains largely a human requirement. Therefore, human judgment remains crucial to the processes of effective policy-making within the public sector, and the question becomes whether the technological advances have made major contributions to that policy-making capacity. The basic question therefore is whether the use of ICT in the public sector provides major contributions to governing, or whether this is just another fad like so many others that have been implemented in the past.

This paper is obviously more about the policy-making role of public bureaucracies than about the management and administration functions. As I will argue below, the needs for reform within the public sector appear to be shifting back to policy, having addressed the managerial issues for some decades. Information and ICT is certainly important for making policy, but the impact may be less direct than it is in the delivery of services and in linking citizens to government through electronic means (Pollitt 2010; Perez 2004).

⁴ There was once a saying that computers were showing up everywhere except in the productivity statistics. That adage is almost certainly less applicable in the public sector than in the private.

⁵ Graham Allison’s famed study of the Cuban Missile Crisis, especially the organizational processes within public organizations, demonstrates the effects (generally negative) of organizations on decisions. While there was less emphasis on the role of judgment, it could be argued, however, that judgment on the part of both Kennedy and Khrushchev was more central to the successful resolution of the crisis.

2. Continuing Patterns of Reform

Some aspects of these reforms have been driven by the development of ICT technologies, enabling information to flow more readily within the public sector, and between the public and the private sectors. Some of these reforms have been directed toward facilitating the interactions of citizens with government (most of the so-called e-government) while other changes have been designed to make the functioning within government itself more efficient and effective. Although these styles of administrative reform appear quite different, they share the common assumption that processes associated with management – inside and outside of government – will alter the performance of the public sector and that technology provides the best interface for achieving those goals.

I will be less concerned with the technological element of the use of information within the public sector and more concerned with some of the processes within government that use the information made available. It is clear that information and technology are increasingly important for governance, but it is not at all clear that technology in general, and information technology in particular, will prove to be the panacea for the problems of governing that it is sometimes deemed to be. The same optimism was evident in the adoption of the New Public Management, and indeed there has been perhaps excessive optimism about the capacity of technology in the public sector for some time.

The emphasis on human judgment in decision-making underlines the somewhat softer side of ICT technology in the public sector. The hard-wired versions of technological change must at some point interface with the humans who are making the decisions. The information that is made available for governments then must be processed and related to decisions being made by the public sector for that information to have any real utility. Therefore in this paper, I will focus more attention on those softer elements in information use and the development of policy judgment within the public sector.

The use of information as a guide to making policy also raises questions concerning the capacity for innovation in the public sector. Some of the mechanisms devised for using governance are less concerned with innovation than they are with utilizing ideas from other settings to improve policy within the target setting. Of course, some aspects of innovation do involve bringing together a range of information and ideas, but the innovation requires the utilization of human judgment and analysis.

The concern with the utilization of information in innovation can be related to more general questions about policy change. While changes in administrative practice may be driven by the capabilities of organizations to utilize information technologies, policy change tends to be driven more by ideas. For example, the advocacy-coalition framework of Paul Sabatier that is the dominant approach to policy change depends upon political bargaining and finding some agreement on an approach to policy that can satisfy both the adherents of the status quo and the advocates of change. The Schon and Rein (1997) approach to reframing as a means of solving policy disputes also depends upon creating alternative sets of ideas to form a consensus on policy, as do discursive models of policy and policy change (Jenson 2009).

The capacity to marshal information may be an important element in creating policy change. In the bargaining that is involved in all these models of changing public policy, the capacity to provide evidence to support the arguments is involved in the attempts to persuade. But information *per se* generally is secondary to these discussions, and the ideas are more central to the resolution of policy debates (see Braun and Busch 1999). For example, models of policy change such as those of Schon and Rein (1997) and Jenkins-Smith and Sabatier (1993) depend much less on the availability of high levels of information than they do on the mobilization of concepts and ideas that appear to describe the situation and the possibilities for change.

Another manner in which the disjuncture between information and policy becomes apparent is in the use of performance management, another component of contemporary administrative reform. The widespread use of indicators to assess success and failure of public policies has had some successes but also tends to drive out more extensive forms of policy analysis and evaluation. The immediacy and relative simplicity of the performance indicators is extremely appealing to both politicians and public servants, but can never replace the need for comprehensive and systematic policy analysis.⁶

3. Information and Governance

As noted, the development of ICT technology has made significant contributions to the administrative side of governance. These contributions can be seen in the ability to reduce the amount of paper in offices, and flowing between citizens and government offices, and in the ability of citizens to contact their governments more quickly. Perhaps the major contribution to “good governance” has been to reduce the amount of face-to-face contact between citizens and administrators, thereby also reducing the capacity for corruption.⁷

If we move to questions of policy, most governments have sought to make the best use possible of information available to it, and have devised a number of mechanisms to make the best possible policies. Historically, the root of the word “statistics” was in the efforts of the State to develop the information required for governing. Without adequate information, the State was simply guessing about what was required for improving the lot of the population or for preserving the political regime. Even the crude information provided by early statistical exercises did enhance the governance capacities of political systems.

The information did not do the work of making policy, of course. As noted, improving governance may require as much improvement in the manner in which the available information is processed and included in decisions. The long-standing concerns of policy analysis (Dror 1986; Duit and Galaz 2008) have been in finding good information and good ideas in order to produce the best-quality policy. The emerging

⁶ This point was driven home to me by a number of senior civil servants in the Nordic countries while conducting research on performance management in their systems.

⁷ That said, however, citizens often value direct human contacts with officials, and value them for more than the capacity to hand cash under the table.

question is whether the scarcity of information is as much a problem for governance as are effective models, effective paradigms and the human capacity to bring the available information to bear on.

The need to move policy ideas into the center of governance reforms can be seen in part in the interest in evidence-based policy. This practice, and associated ideas such as policy-learning, have become common to the point of becoming almost clichés about governing. That said, however, there is less evidence of their effects than their advocates might like. Further, learning about policies across political and social systems remains a rather tricky activity for which there is no clear methodology, and thus the utility of the information for making policy may not match its availability.

4. Information and Coordination

The development of information technologies should be able to enhance the capacity of organizations within the public sector to coordinate their activities, as well as the capacity to share information relatively easily and to develop common policy positions through more frequent interactions. For example, one Canadian public official has argued that flexibility in the public sector, and with that coordination of public programs, could be enhanced through creating “virtual organizations”. These organizations would be connected primarily through computer wires so that information might be diffused without the organizational and personal barriers that might reduce communications and cooperation.

The advocates of technological solutions to the problems of public governance and coordination argue that the use of ICT will enable governments to become more virtual (see above), become more dispersed geographically, and more networked (see Vintar 2010). Interestingly these approaches to governance all reflect some continuations of the trends initiated by the New Public Management in decentralizing and delegating authority within the public sector. The assumption appears to be that these trends will all be virtuous and reflect the continuing modernization of public administration. The assumption is that highly decentralized and deconcentrated formats for governing are capable of utilizing information to overcome the inherent fragmentation of such approaches, an assumption that is at best unproven.

From the perspective of coordination, however, these continuing patterns of decentering the public sector may exacerbate the underlying problems of making public policy more coherent and better coordinated. For example, the agencification of programs (see Laegreid and Verhoest 2010) may have contributed to some aspects of efficiency in the public sector but also created greater autonomy (both real and perceived) for these organizations that has had to be overcome if there is to be effective coordination. Much of the same logic would apply to moving program responsibilities to other territorial levels, with those governments having perhaps even more autonomy because they can claim greater legitimacy.

As noted already, technological change may be able to provide some enhanced capacity for coordination. The capacity to share information through computer systems, the availability of virtual networks for cooperation, and the general spread of information technology should facilitate the ability of organizations to work together.

Virtual networks composed of members of multiple organizations can facilitate those organizations working together, and information should be more possible (assuming that the individuals and organizations involved are willing to share).

The availability of information, somewhat paradoxically, may actually reduce program coordination. In the public sector, information is power for those who possess it. The same is true in the private sector, but information is perhaps especially important in the public sector, given that the participants lack other, more direct, means for assessing their performance. They also often lack means for exercising power over others organizations. Therefore, individual organizations, when they possess information, tend to hoard that and use it as a means of controlling other organizations. Even within a single organization, individuals at lower levels of the organization may also hoard and/or distort information in order to advance their own position within the organization.

As well as the availability of information constituting a source of power for organizations, and for actors within organizations, increasing the flow of information may only narrow perspectives and make coordination less likely. When faced with an increasing volume of information, and indeed enough to swamp most individuals' or most organizations' capacity to utilize it all, the initial selection of information types and information sources may lead to premature selection and therefore failure to consider the full range of options available for policy responses.⁸

The tendency toward narrowing information can be related to Martin Landau's classic argument (1969) about the rationality of redundancy in policy-making. Much of the literature on policy coordination, and public management more generally, tends to consider the multiple organizations and institutions responsible for policy or implementation to be excessively costly and perhaps counterproductive. On the other hand, however, multiple and conflicting sources may provide a better picture of policy problems and also of policy solutions. The immense volume of information now available to public organizations should make using those multiple sources easier, but the overload may lead to over-simplification and premature closure of options (see Wilensky 1971).

The role of information in decision-making involved with coordinating policy and administration was clear in the lead-up to the 9/11 attacks in the United States. Various parts of the information that might have averted the attacks in New York and Washington DC was held by four federal organizations.⁹ These organizations did not, however, share that information, so that little was done to prevent that tragedy. The creation of a national intelligence czar after 9/11 was meant to address these difficulties, but the evidence remains that organizations hoard their information much as before, even though an elaborate infrastructure designed to promote coordination has been developed.

⁸ The analogous position appears to hold for individuals who, faced with large volumes of news and political information, tend to opt for "narrow-casting" and only paying attention to media that reinforce their pre-existing biases. The huge flow of information even in those ideological areas is sufficient to produce information overload. Thus, again paradoxically, the increase of information may produce a less-informed populace.

⁹ These were the Central Intelligence Agency, the National Security Agency, the Federal Bureau of Investigation and the Federal Aviation Administration.

The use of intelligence in policy decisions may be different from other types of policy questions, as indeed all policy areas will have their own complexities and their own necessary levels of information. For some policy areas, the development of ICT may be crucial in feeding information rapidly to decision-makers who need “real time” information to make good decisions – emergency management may be a good example of a domestic program of this type. Many other policy areas, however, have longer lead times and slower development processes so that rapid flows of information may be less crucial.

I should also note that the networking capacity of information technology should be taken into account when considering the effects of ICT on coordination within the public sector. Most models of coordination emphasize the use of top-down authority, and indeed most attempts to create coordination are hierarchical. That said, coordination can also be achieved from the bottom up through the use of networks. Social actors who are involved in a number of different networks may provide the linkages among those networks that are capable of getting the policies to be more coherent and coordinated. This coordinative capacity is not necessarily a function of technology, but it can be facilitated through the use of the technology.

5. Summary and Conclusion

As noted at the outset of this paper, the intentions of the paper are rather contrarian. This is true for several reasons. The first is that rather than focusing on the role of technology per se, I have instead asked somewhat broader questions about the capacity of organizations in the public sector to cope with large flows of information. The emphasis on technology tends to obscure perhaps the more basic issues that reside in any formal organization. These problems are with how information is transmitted within organizations¹⁰, among organizations, and from the environment to the organization.

Further, and perhaps most importantly, the emphasis on ICT may obscure the internal difficulties in making decisions and using the information to enhance the quality of decisions. There has been some increasing interest in mechanisms such as evidence-based policy-making and in the use of performance management. Although many of these efforts have pointed to the need to develop softer technologies for consuming information as well as the harder technologies for producing and disseminating information. Without an adequate intellectual framework for utilizing information, that potential asset simply becomes a set of facts unrelated to decisions.

I should also point out again that the development of ICT has played, and will continue to play, a major role in the delivery of public services, and hence may be more a continuation of the managerialist logic of the past several decades, rather than a real revolution in administration in its own right. These contributions are certainly significant but so too is the capacity to make the best policies to be administered

¹⁰ As Victor Thompson argued decades ago, in most organizations information resides at the bottom, decision-making at the top, and the management task is to get the two together. Despite innovations in the structure and management of public organizations, this observation about government remains important and represents a continuing challenge to governing.

through these or other means. That dimension of “good governance” will, I believe, require somewhat more attention to the capacity to enhance judgment and to enhance the actual utilization of the massive flows of data and information that appear to characterize contemporary public administration.

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