Intergovernmental Digital Government through G2G Relationships and Applications

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INTRODUCTION

Increasing governmental complexity is a global phenomenon marked by the need for multiple organizations to interconnect their policies, business processes, information, and systems in the service of shared public goals. These goals encompass some of the most important responsibilities of government including environmental stewardship, education, healthcare, and public safety. For these kinds of responsibilities, working across both vertical and horizontal boundaries is an essential feature and fundamental challenge.

BACKGROUND

Digital government advocates often point out that citizens should not need to know how government is organized in order to access its information and services. Most digital government initiatives launched in the last decade have therefore taken a citizen-centric focus which encourages alignment of various systems, organizations, and processes toward a single external target—high quality citizen services. These efforts have been dubbed "G2C" or government-to-citizen applications. Similarly, governments have used a "G2B" or government-to-business approach to achieve alignment, rationality, and better performance in the functions which bring businesses into contact with government. Much less attention has been paid to a third approach, "G2G" or government-to-government connections, yet the interdependencies and functions which cross the boundaries of agencies and jurisdictions are crucial to most major public programs. G2G programs may be internal to government such as in financial management, but they also comprise the underlying fabric of most programs that serve citizens and businesses. While the citizen may not need or want to know how government is organized, the structure of government, including its intergovernmental dimension, remains a fundamental factor in the design of programs, systems, and services (Cameron, 2001). This structure is embedded in and supported by legal and constitutional frameworks. However, the emergence of e-government challenges even those frameworks by its need for an architecture that links different parts of government in new ways that restructure not only administration but also budgets, legal authority, and constitutional relationships among units of government and between government and the private sector (Morrison, 2003). The limits of legal authority often rest on the basic assumption that agencies work alone and inside fixed geographic boundaries. Consequently, networked services raise new legislative and regulatory issues of authority, security, privacy, and accountability when information and responsibilities cross-organizational or jurisdictional boundaries (OECD, 2003). In addition, intergovernmental initiatives involve different institutions and agencies with their own organizational cultures and business practices which need to be understood and meshed together into an intelligent whole.

The terms "intergovernmental" and "G2G" are used in several ways. They can denote horizontal arrangements of inter-agency or inter-jurisdictional relations at the same level of government. For example, regional-level transportation, motor vehicle, and police agencies may cooperate to analyze auto accidents, or several municipalities within a region may share a purchasing and procurement system. G2G is also used to describe international systems such as those which support free movement of European citizens across the borders of EU member countries (European Commission, 2003). Vertical G2G systems link multiple *levels* of government in a coherent service delivery or administrative environment. In political science terms, they are systems that mirror federal or federated systems of government, which typically comprise national, regional, and local units and their respective agencies. Regions are typified by states in the U.S. or provinces in Canada. Local governments include cities, towns, and other municipalities. In practice, large intergovernmental systems may have both vertical and

horizontal elements. The principles and strategies presented in this article are relevant in all of these contexts.

INTERGOVERNMENTAL RELATIONS AND SYSTEMS

Intergovernmental relations among levels of government are characterized by both interdependence and complexity. Interdependence means power is shared requiring mutual accommodation. Complexity derives from the large and differentiated intergovernmental network that prevents any one participant from having "enough information about its components and dynamics to make rational decisions on its own or to operate in isolation from the rest." (O'Toole, 2000, p. 19).

Many models have been developed to conceptualize intergovernmental relations. One useful set contrasts different forms of authority relationships among levels of government (Wright, 1988). In the coordinate-authority model, a national government has defined powers, local authorities are creatures of regional governments, and the regions and localities together exercise powers separate from those given to the national government. The inclusive-authority model conveys a hierarchical, dependent relationship among the levels with the most power at the national level and increasingly less at regional and local levels. In the overlapping-authority model, the three levels of government are seen as interdependent, each having substantial areas of overlapping authority, some areas of autonomous authority, and limited power and influence that necessitate many forms of negotiation and bargaining. This third model, with its many mechanisms for negotiating and managing the interconnections (Agranoff & McGuire, 2004), is most widely accepted as a conceptual representation of modern intergovernmental relations (Opeskin, 2001). It conveys the idea that intergovernmental structures are managed networks of interdependent organizations (O'Toole & Meier, 2004). Three examples of G2G digital government illustrate this model. *Service New Brunswick* offers residents of one Canadian province access to online services of the Canadian national government, the province, and their local municipalities through a single Web portal. Although transparent to citizens, all three levels of government are at work behind the scenes linked by policies, technical infrastructure, and standards. In Italy, Austria, and other European countries, the adoption of electronic citizen identification cards requires an intergovernmental infrastructure of policies, data standards, security protocols, telecommunications networks, and organizational processes that cross national, regional, and municipal boundaries. In the United States, The National Map project provides a variety of geospatial data and information to government, private sector, and individual users. It is the product of a consortium of federal, state, and local partners who voluntarily provide layers of geospatial data for use at global, national, and local scales.

G2G Issues and Challenges

Research on intergovernmental information systems shows that they operate in an extremely complex environment. This complexity derives from a profusion of authorities, roles, and relationships; great variety in local conditions; diverse agency cultures and missions; ever-changing technologies; and limited ability to adapt to change (Dawes & Pardo, 2002). The basic structural and philosophical differences among levels of government present major challenges. For example, the greatest financial and professional resources for intergovernmental work often lie at the national level, but the best knowledge of clients and service delivery considerations is regional or local. Local officials tend to be generalists and to work closely with the communities they serve; by contrast, regional and national officials tend to be specialists, to focus on broader policy concerns, and to be removed from the day-to-day demands of program operations. In addition, local officials are focused on the specific needs of their own communities, while regional and national officials are more concerned with broad consistency and equity across larger geographic, demographic, and cultural divisions. In jurisdictions with many local units, the wide variation in local conditions—economic, demographic, geographic, cultural, and historical all add to the complexity (Dawes, Pardo, Connelly, Green, & McInerney, 1997).

When digital government systems are built to support intergovernmental functions, they often oversimplify diversity and complexity, leading to inappropriate or uncoordinated policies and actions and causing poor performance and unclear accountability. Oversimplification is especially problematic in two respects: when it masks the often low level of technical expertise and infrastructure at the local level and when it ignores the business practices already in place. Moreover, the tendency of governments to create a proliferation of programs (each with its own legal authority, funding stream, reporting requirements, and administrative structure) has led to a similar proliferation of independent information systems that each support only one business function or satisfy one particular program need. As a result, a large and growing number of individual systems for G2G business relationships are employed across levels of government. This multiplicity of systems require their own hardware, software, security, and business rules. In order to perform business functions on each system, users require numerous log-ins and