

Chapter XII

E-Government Dynamics

1. E-GOVERNMENT DYNAMICS

It was Sterman's (2000) book entitled "*Business Dynamics: Systems Thinking and Modeling for a Complex World*" that introduced the term business dynamics. Business dynamics is concerned with learning in and about complex systems. Effective decision-making by growing dynamic complexity requires executives to become systems thinkers – to expand the boundaries of their mental models and develop ways to understand how the structure of complex systems creates behavior.

We start this chapter discussing how to overcome barriers to E-Government. Then we present a framework for assessment of E-Government projects. In the context of system dynamics, we discuss causal loop diagramming, modeling and organizational performance.

1.1 Overcoming Barriers to E-Government

In a study of the European Union, Archmann and Kudlacek (2008) identified the main interoperability barriers including sensitivity of data, cultural differences between government departments, issues of trust, timing, collaboration between agencies, organizational and technical problems, unsatisfactory workflows, convinc-

ing stakeholders of the importance of the system, legal issues and also the importance of political support and funding. On the other hand, they identified enablers of improved interoperability, such as wide use of digital signatures, commitment at all political levels to interoperability projects, engagement and involvement of all stakeholders from the very beginning and time constraints.

In a research agenda for E-Government integration and interoperability, Scholl and Klischewski (2007) suggest future research projects to study the foci and purposes, limitations and constraints, as well as processes and outcomes of integration and interoperation in electronic government. In such future research projects, the stages of growth models presented in this book might prove helpful in organizing findings.

Progress towards realizing the full potential of E-Government – using digital technologies to improve public services and government-citizen engagements – has been slower and less effective than the technologies' take-up in spheres such as e-commerce and e-business according to Eynon and Margetts (2007). They identified seven categories of barriers to E-Government progression:

1. Leadership failures resulting in slow and patchy progress to E-Government.
2. Financial inhibitors limiting the flow of investment to E-Government innovation.
3. Digital divides and choices, where inequalities lead to differences in motivations and competences that constrain and fragment E-Government take-up and fail to address particular user needs.
4. Poor coordination across jurisdictional, administrative and geographic boundaries that holds back E-Government networking benefits.
5. Workplace and organizational inflexibility impairing adaptability to new networked forms of information sharing and service provision.
6. Lack of trust heightening fears about inadequate security and privacy safeguards in electronic networks.
7. Poor technical design leading to incompatibilities between information systems or difficult-to-use E-Government services. Where such services lag behind innovative applications used by society more generally, government organizations will find it increasingly difficult to address issues of interest to online communities, which will tend to have different communication channels and mechanisms for producing content.

The seven categories are broad and tied to a multitude of more specific barriers relevant at different governance, institutional and jurisdictional levels. In addition to the seven barrier categories, Eynon and Margetts (2007) explored eight legal areas that provide important foundations for examining and identifying key barriers to

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