

This article outlines what e-Government is, how it is changing government, how it can be delivered, and what kind of progress governments are making in this area.

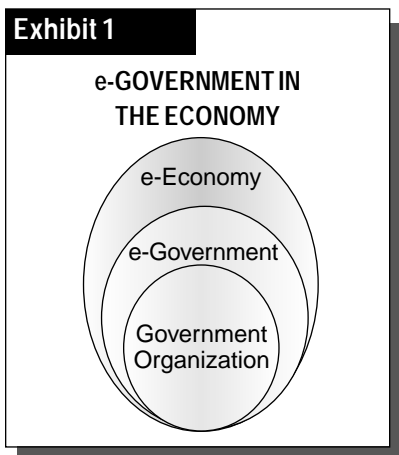
e-Government Across the Globe: How Will “e” Change Government?

By Mark Howard

Described simply, e-Government is the application of the tools and techniques of e-Commerce to the work of government. These tools and techniques are intended to serve both the government and its citizens.

Exhibit 1 shows the idea that the governmental organization can use the concepts of e-Government to extend its reach into the greater e-Economy. Eventually, e-Government will become “simply the way things are done” and will no longer be treated as a brand new concept, as happened with spreadsheets and fax machines.

Exhibit 1



E-Government is the next step in the natural evolution of how government services respond to changes in the broader economy and society. Exhibit 2 shows that during the early part of the 20th century, the United States moved from an agrarian economy to an industrial economy; i.e., commercial transactions were more often industrial than they were agrarian. A similar displacement of the industrial economy by the “electronic” economy has taken place since the

1970s. The exact date when the electronic economy will overtake the industrial economy is open to debate; however, that the changeover will occur is not a question.

Some statistics and projections to back up the growth of the “electronic” economy are listed below.

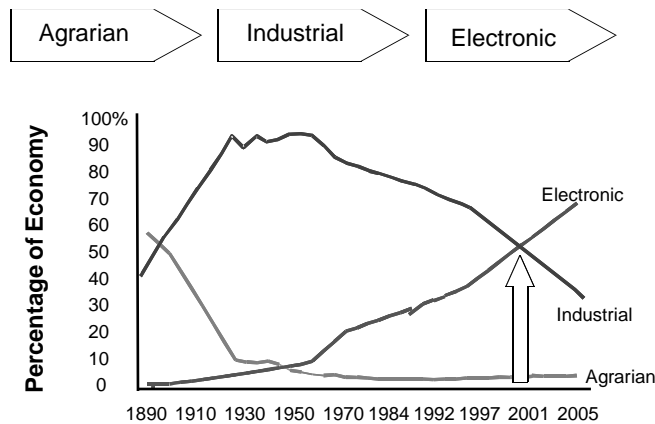
- Industry analyst Forrester Research reports that businesses sold \$43 billion worth of goods to each other over the Web in 1998. Forrester projects that by 2003, business-to-business (B2B) sales will reach \$1.3 trillion, or 9.4 percent of all business-to-business sales.
- The total number of Internet users reached approximately 100 million by the end of 1998 and is projected to reach 320 million by 2002. Web buyers are expected to represent 40 percent of all users in 2002, up from 26 percent in 1997, generating \$400 billion in annual revenue.

Given that e-Government is a natural evolution of service delivery methods, the following changes can be expected.

- *Costs of collaboration and interaction will be lower*—more people will be able to participate in the process of government more easily and at lower costs in terms of dollars and time. For example, by using the Internet, citizen groups are able to learn more easily about issues affecting their community, study these issues

Exhibit 2

ECONOMIC TRANSFORMATION IN THE UNITED STATES

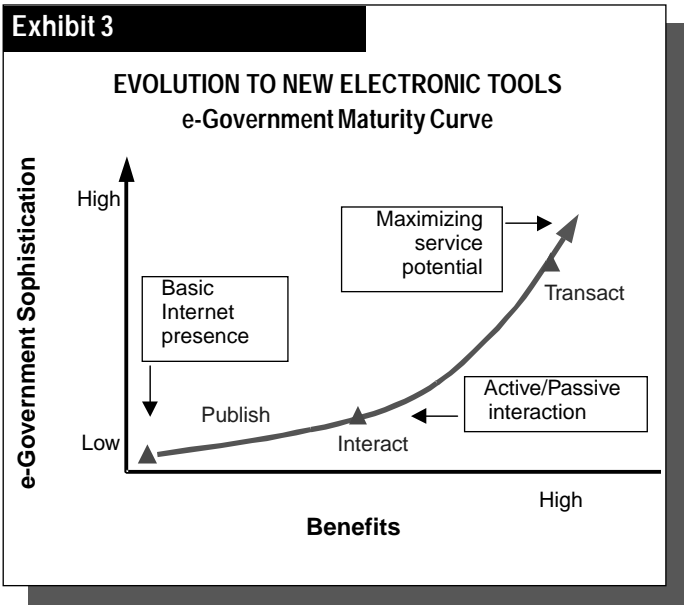


Source: Marvin Zonis & Associates

and their impacts in similar communities, mobilize a constituency and express their wishes, and affect the discussion within legislative bodies. All this can now be accomplished without ever setting foot in City Hall.

- *Return on scale is less important*—governments historically have had to be larger to justify delivery of certain services, such as tutoring help for disadvantaged children. Smaller governments can now provide such services through third-party providers over the Web, taking advantage of the fact that other smaller governments may be doing the same thing so that the aggregated demand is larger. Acting on a concept similar to “buying in bulk,” small governments will be able to unite for greater purchasing power of such services.

- *Information access is far less restricted*—access to information is critical to participate in governmental decision making. Historically, that information could frequently be difficult to obtain and analyze. The Web and modern reporting and analytical tools now put the power to gather and analyze data on the desktops of both citizens and policymakers.



- *Time and costs to implement new systems are not as great*—historically, providing new and sophisticated public services has required new and complex information systems. Those systems have been large, difficult to implement, expensive, and cumbersome to change. The new tools of e-Commerce are making systems implementation projects more rapid, less expensive, and more accommodating to new policies, procedures, and priorities.

Exhibit 3 shows the basic evolution any entity—public or private—experiences in responding to the new electronic tools and techniques.

Every entity over time grows increasingly sophisticated in how it provides e-services. There are at least three stages in that evolution “up the curve:”

- *publish*—the government has an electronic presence, but essentially just publishes information about itself and its activities.
- *interact*—the government gives citizens the ability to actually interact with it, from something as simple as sending e-mails to participating in “chat rooms” on specific policy questions.
- *transact*—the government actually enables citizens to carry out transactions over the Internet, such as purchasing licenses and permits, applying for programs and services, signing up for classes, etc.

Research shows that most government Web sites function in the publish stage, with some movement toward the interact stage. Only a few governments are doing much in the transact stage.

How Will ‘e’ Change Government?

The reality is that governments will increasingly use e-Commerce tools and techniques to deliver services and carry out the governing process. The greatest impact of these new tools will be felt in two primary roles of government.

- *Creating an environment where e-Government can flourish*—government has a very large role in setting the rules for commercial activity. Tax policy, trade legislation, and even the legality of

electronic signatures are all examples of government’s role in allowing e-Commerce to work effectively. The goal of government in creating the best commercial environment is to create wealth and enhance competitiveness. This is a topic rich in more discussion, but is beyond the scope of this article, other than these general comments.

- *Delivering government services to the public electronically*—governments at all levels will increasingly deliver their services electronically. This evolution will likely not replace direct service delivery. Instead, the electronic vehicles will be an additional means of delivering services.

This new “channel” will enable governments to focus more on reaching out to citizens, rather than forcing the citizens to come to the government. The costs of reaching out to citizens will be lower, so the services can be more readily available.

In addition, the new tools will cause governments to look at new ways to deliver those services, particularly partnerships with private providers for services that governments historically have provided themselves (such as the tutorial example above, or payment services for welfare recipients). The primary goals in adopting these new business models and partnerships will be to provide greater convenience to citizens at lower costs.

How Will e-Government Be Delivered?

The most significant trend in e-Government is the increasing focus on the Web “portal.” Portals and the centralization of access to government services through portals are emerging as the primary

Exhibit 4

DIFFERENCES BETWEEN PORTAL AND WEB SITE

Web Site	Enterprise Portal
Basic homepage	Organized by customer groups or internet
List of agencies	Lists key services
Mainly static information	Information and interactions
Some transactions	Transactions rich
Organized by agency	Organized by user need
Separate from IT	Fully integrated to IT systems
Weak customer support	Full customer support

model for implementing online government.

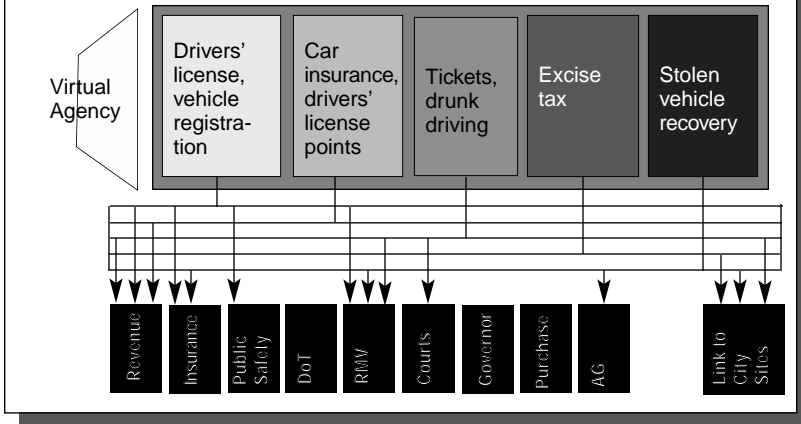
A true e-Government portal is much more than just a Web site. Exhibit 4 summarizes the characteristics that differentiate one from the other.

The primary difference between a Web site and an enterprise portal is the concept of “intentions-based design.” The idea is that the site is organized by what the citizen/customer needs, not by how the government is administratively structured. Citizens should be able to find whatever services they need without ever knowing what government agency is providing it. Citizens may have often found it intimidating trying to figure out where to go for a service. They will find it much easier if a menu of services is presented to them and they don’t have to navigate through the bureaucratic structure to reach their end goal.

Exhibit 5 presents one example of an “intentions-based design.”

Exhibit 5

INTENSIONS-BASED DESIGN



The top layer represents what the citizen sees when entering the Web site for dealing with motor vehicles issues. The citizen sees a selection of five areas where he/she has to deal with the government. Behind the scenes, the systems are all integrated so that the numerous agencies listed on the lower level can all carry out their parts in serving the citizen; for example, if the citizen wants to get a driver's license or register a vehicle, the portal gathers the necessary information and automatically gets it to the appropriate "back end" information systems for revenue, insurance, and public safety. The citizen is not forced to go to the three agencies separately. This will save time and effort for both the citizen and the government.

Progress in Achieving e-Government

Accenture recently completed its second annual worldwide study on the progress of e-Government, which surveyed the federal government Web sites of 22 countries and compared the level of services available in 2001 to the level of services available in 2000.

The first general finding is that governments worldwide are progressing toward providing more e-Government services. However, no government is showing the sophisticated Internet presence that

is becoming the norm in the private sector.

Next, the study found that single portal sites are not yet the norm among governments. Most Web sites are still organized by agency "silos" rather than by the services provided.

Finally, the study found that governments are facing greater hurdles than private-sector organizations in offering more sophisticated electronic services. The "digital divide" makes it more difficult to get services to citizens who may not have access to computers, and those citizens are often the people who most need the services provided. In addition, governments face more legal, societal, and cultural hurdles in providing electronic services than do private firms.

Exhibit 6 shows that the leaders in e-Government worldwide are Canada and Singapore, followed by the United States. It is important to note that even though all the governments are making progress, even the most highly rated are showing less than 50 percent "maturity" ratings. So, while everyone is making progress, there is still a long way to go in providing true e-Government services.

Another study recently completed by Accenture reviewed the progress of the portals of U.S. state governments. This also was a second annual survey, so comparisons are possible. The survey reviewed 150 possible services on each state's portal to determine

Exhibit 7

STATE GOVERNMENTS' ONLINE MATURITY

<u>Maturity Stage</u>	<u>Average%</u>	<u>High%</u>	<u>High State</u>
Publish	59%	81%	Colorado
Interact	14	37	Texas
Transact	6	21	Massachusetts

whether each service would be categorized as being at the publish, interact, or transact stage.

In general, every state has started providing some level of e-Government services on their portals. The speed of adoption and what is offered from one state to the next varies widely, however. Great differences exist in how "transaction-rich" each state portal has become. Governments and citizens will not realize the full benefits of portals and electronic provision of services until more transactions are possible online.

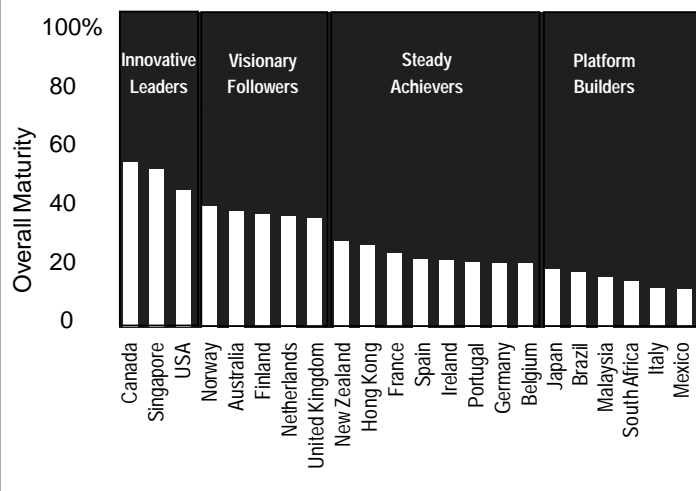
Exhibit 7 shows the average and high score in the study for each category of online maturity (publish, interact, transact). A majority of the 150 services surveyed are available online with publishing services. There is a precipitous drop in the percentage of services that are available at the interact stage, and then only a small fraction that enable transaction processing. So, while states are making progress, there is still much room for improvement.

The apparent lack of robust online interactions and transactions in comparison to published information is easy to understand. An agency can quickly build a Web site and publish information. However, building interactive Web sites with powerful interaction and transaction capabilities and with links into the agency's existing IT systems requires vision and planning to ensure a coordinated approach with a reengineered back-end to support seamless delivery of services to businesses and citizens. Also, a mechanism is required to regu-

Exhibit 6

GLOBAL e-GOVERNMENT LEADERS

Country Maturity



larly refresh the site.

While there is much room for growth, a growing variety of services are being offered by state governments through their portals. This list provides some idea of the possibilities, and more are being added daily:

- 30 states allow citizens to file their personal income tax returns electronically;
- in 15 states, citizens can buy and print out hunting and fishing licenses online;
- drivers in Virginia, Arizona, and Massachusetts can and do renew their vehicle registration on-line;
- citizens in Massachusetts can type in their address and locate their voting location;
- in Washington, Pennsylvania, Ohio, North Carolina, New Jersey, and Kentucky, entrepreneurs can search for the availability of a specific corporate name;
- concerned citizens in Kentucky can use an interactive map of the state to report possible illegal dumping of hazardous material;
- in Oklahoma, businesses can apply for liquor licenses online and print temporary licenses;
- Virginia and Alaska enable drivers to create and order personalized license plates;
- in Hawaii, users can search for complaints filed against companies doing business in the state; and
- in North Carolina, businesses can search for open bids from the state by product area.

Conclusion

E-Government is quickly becoming a reality. Citizens and businesses are adopting it quickly enough that it will eventually become simply one of the ways “things get done” rather than a novel concept. One of the primary vehicles governments are building to provide services is Internet “portals” that give citizens a single, easy access point to services. For portals to be effective, though, they must not be just a listing of organizations; the portal must incorporate the principles of “intentions-based design.” Without such a design, citizens will get frustrated and not use the site, and the government will lose the benefits of using electronic technology to provide the service. Governments all over the world and in the U.S. are making significant progress in implementing e-Government, but there continues to be plenty of room for continuing expansion and improvement. ■■■

MARK HOWARD is a senior manager with Accenture, LLP. His clients include the cities of Boston, Milwaukee, and Glendale (AZ), the Metropolitan Council (Minneapolis/St. Paul), the Universities of Massachusetts, Michigan, and Wyoming, the states of California, Kansas, and Colorado, the French Ministry of Finance, and several United Nations agencies. Howard is an instructor for GFOA's National Training Programs in technology and budgeting. Prior to joining Accenture, he was the City Administrator for Baraboo (WI), the Deputy City Manager and Budget Director for Longmont (CO), and the head of the Productivity Task Force for Carrollton (TX).