E-Government and Public Affairs Education

Edward T. Jennings, Jr.

This article was originally published in CPAR Volume 1, Issue 3/4, 2002

This article examines three fundamental questions with respect to the place of e-government in graduate education for careers in public service. First, where does e-government fit in the curriculum of graduate programs in public policy and administration? Second, might we expect the answer to this question to vary depending on the institutional home and type of public affairs degree? Third, should we expect programs to offer a required course on e-government or should we aim to integrate material on e-government throughout the curriculum? These questions are approached through standards developed for public affairs education in the United States, but they are examined in the context of international variations in governance, technology and education. The article first traces the development of e-government across the globe, summarizing important issues and consideration that government must answer as they pursue e-government initiatives. It then reviews standards that have been developed for public affairs education in the U.S. and turns to the question of how to incorporate e-government in the curriculum. E-government involves much more than technological and information management questions. Thus, it has implications for the entire public affairs curriculum. It is unlikely that a single course can successfully covers technical, managerial, and policy dimensions of e-government. For most programs, it will be more productive to explore e-government across a range of courses in the existing curriculum. The approach that is taken is likely to be affected by institutional settings, resources, and faculty competencies. It is also likely to be shaped by the broader social, economic, and political environments in which programs operate. Although the stage of e-government development in the country is likely to make a difference, we can also hope that our training will also shape e-government's development.

Technological transformations shape much of what we do in contemporary governance. They affect the amounts and types of information available to citizens and decision makers, the speed and volume of communications, the ways we make and implement laws, and the manner in which we deliver public services. The same technological innovations that have hastened the development of global markets in the private sector have had major consequences for the delivery of public services. Just as e-commerce has transformed relationships among producers, retailers, and consumers, so also has e-government opened possibilities for dramatic changes in governance relationships. Those changes, in turn, have substantial implications for public affairs education. It is these implications that I want to address.

Drawing on a limited range of sources on the development of e-government, I want to explore three questions:

1. Where does e-government fit in the curriculum of graduate programs in public policy and administration?
2. Might we expect the answer to this question to vary depending on the institutional home and type of public affairs degree?
3. Should we expect programs to offer a required course on e-government or should
we aim to integrate material on e-government throughout the curriculum?

In the American context, this is a familiar problem in some ways because it has been discussed frequently in relation to other topics. These questions require discussion whenever we grapple with the issue of how to insure that students have the knowledge, values, and skills that are critical to successful public service careers.

Although the discussion is grounded in a consideration of the American experience and the development of public affairs graduate degree programs in the United States, it has relevance for public affairs education across the globe. Whether in The Netherlands, Brazil, New Zealand, or China, public administrators and policy makers will need to develop the skills and knowledge necessary to guide and manage government’s presence on computer networks and its use of advanced information technology. Thus, graduate programs in public policy and administration must prepare their students to assume leadership in this arena.

We can discuss these questions in light of standards that have been developed for professional graduate degree programs in public affairs and administration in the United States. Those standards, developed by institutional representatives to the National Association of Schools of Public Affairs and Administration (NASPAA), provide the basis for the voluntary accreditation of graduate degree programs. While the standards identify important curriculum components that must be covered by all accredited programs, the curriculum components are identified with sufficient generality to leave programs considerable leeway to identify the specific content and extent of coverage of each component.

**Development of E-Government**

E-government, with its roots in computerization and instantaneous communications, has major implications for the relationship between citizens and their governments. Reviews of experience with e-government internationally and in the American states suggest the range of use and potential avenues for further development.

A report of the United Nations Division for Public Economics and Public Administration and the American Society for Public Administration (Ronaghan, 2001) characterizes the extent to which nations around the world have developed a presence on the Internet and World Wide Web and used it to provide information and services to their citizens. For purposes of that report, e-government was defined as "utilizing the internet and the world-wide-web for delivering government information and services to citizens" (Ronaghan, 2001, p. 1).

The report discusses five stages of e-government. Those are emerging, enhanced, interactive, transactional, and seamless (Ronaghan, 2001, p. 2).

- **Emerging** - an official government presence on-line
- **Enhanced** - government sites increase and information is more dynamic
- **Interactive** - users can download forms, e-mail officials, and interact through the web
- **Transactional** - users can pay for services and other transactions on-line
- **Seamless** - full integration of e-services across boundaries

Each stage represents more developed and sophisticated e-government presence. The study indicates considerable variation in the extent to which countries have developed a web presence. Most governments (88.9 percent) have a web presence. Of those, a majority is at the emerging or enhanced stages. Only 9 per-cent of UN member states have reached the transactional stage. Of the 169 UN member states with a web presence, eighty-four, less than half of the total member states, have a national government website. Only 36 have single-
entry portals, and only 17 have on-line trans-action
capacity (Ronaghan, 2001: 1-2). The report goes on
to discuss a vari-ety of important issues and strategic
considerations for governments to address as they
develop e-government applications. It asks how e-
government will affect the performance of public
organizations, what structural effects it will have on
public organiza-tion, the skills public employees will
need to maximize their performance in an information
age, the leadership skills of the new whether e-
government will affect the autonomy of public
servants and lead to a rethinking of conventional
adminis-trative practices. It points out the necessity of
balancing the needs of cit-izens with those of
government staffers and administrators (Ronaghan,
2001, p. 48).

The report also identifies barriers to e-
government in the form of institu-tional/operational
features, managerial characteristics, and
policy/planning capabilities (Ronaghan, 2001, p. 49).
A series of administrative issues accompany these
barriers: insufficient coordina-tion, a failure to
develop project management teams for e-
government, a digital divide within public adminis-tration, weak
political leadership, insufficient data on cost
effectiveness, and a digital divide in society
(Ronaghan, 2001, p. 50-53).

In a report on web portals of American state
govern-ments, Gant, Gant, and Johnson (2002) assess
the degree of development of e-government in the
American states. They define web portals as an
inte-grated entry to a state government web site that
pro-vides users with a single point of contact for
online service delivery in the state (Gant, Gant,
Johnson, 2002, p. 6) They examine the functionality
of the web portals of the fifty states in terms of the
following:

- openness, or the extent to which a state's
  web site provides comprehensive
  information and services,
- customization, or the degree to which
  users can uniquely tailor their views of
  portal content,
- usability, or how accessible the content is
  for a range of users, and
- transparency, or the ease with which users
  can determine the legitimacy of the
  content (Gant, Gant, Johnson, 2002, p. 6).

They find significant variation in the level of
devel-opment of state web portals and report that the
top state portals offer access to services, contact
information for agencies, and usability for most
constituents of the state. They suggest that
progressive states organize web services around
activities or events, rather than around agencies.
While we might expect that the states with the most
well-developed web por-tals would be those that are
wealthy, urban, and highly developed, it turns out that
some of the leading states are not. Among the top five
states, California, North Carolina, and Pennsylvania
might fit that descrip-tion, South Dakota and Maine
do not.

For present purposes, the most interesting
aspects of their report deal with their major
recommendations for enhancing state web portals.
They urge states to do five things (Gant, Gant,
Johnson, 2002, p. 7):

- emphasize customer service,
- organize services by events rather than
departments,
- allow for customization,
- recognize the diversity of portal
  audiences, and
- include features that enhance legitimacy
  of the portal.

Gant, Gant, and Johnson find that the
American states are doing better on some dimensions
of func-tionality than others. For example, only seven
states allow citizens to customize their view of the
site; only two score high on this dimension. They
judge four states to be inadequate in terms of
openness and 22 to be low. Four states score high on
openness. They find thirty states to have medium
usability; six are rated high. Finally, they judge most
states (33) to have inad-equate transparency.
There are, of course, a wide variety of services that could potentially be made available to citizens through state web portals. Gant, Gant, and Johnson (2002, p. 21) say that leading state portals offer such services as car registration; tax filing, form, and instruction down-load; professional licensing; access to state regulations and pending legislation; recreational licensing (e.g., fishing, hunting); and access to a wide variety of agen-cies. The possibilities would seem to be endless. Web sites can make available a wide variety of information, including studies and reports, census data, and data for use with geographic information systems. Educational services can be offered over the web. American states have, for example, created virtual universities. A study of the Kentucky Virtual University (KYVU), which offers courses from universities, colleges, and technical schools throughout the state, finds that it is making higher education available to citizens who would not otherwise be able to take advantage of it (Kentucky Long-Term Policy Research Center, 2002). Residents of rural areas, where higher education is less accessi-ble, are disproportionate users of KYVU. Although rural residents make up 51 percent of Kentucky's pop-ulation, they make up 77 percent of the students of the Kentucky Virtual University.

NASPAA Standards

NASPAA Standards for Professional Masters Degree Programs in Public Affairs, Policy, and Administration create a set of expectations for curricular components. These include a set of common curriculum components that all programs are expected to offer and a set of addi-tional curriculum components for work beyond the common core. The latter can include coursework for areas of specialization. The requirements for common curriculum components are as follows (NASPAA, accessed May 29, 2002):

4.21 Common Curriculum Components. The common curriculum components shall enhance the student's values, knowledge, and skills to act ethically and effectively:

In the Management of Public Service Organizations, the components of which include:

- Human resources
- Budgeting and financial processes
- Information, including computer literacy and applications

In the Application of Quantitative and Qualitative Techniques of Analysis, the compo-nents of which include:

- Policy and program formulation, implemen-tation and evaluation
- Decision-making and problem-solving

With an Understanding of the Public Policy and Organizational Environment, the components of which include:

- Political and legal institutions and processes
- Economic and social institutions and processes
- Organization and management concepts and behavior

These area requirements do not prescribe specific courses. Neither do they imply that equal time should be spent on each area or that courses must all be offered by the public affairs, public policy or public adminis-tration programs. Nor should they be interpreted in a manner that might impede the development of special strengths in each program.

The standards leave open diverse possibilities for the coverage of curriculum components. They pre-scribe neither specific courses nor specific content. Nor do they mandate a fixed amount of time on any part of the common curriculum components. American public affairs programs, reflecting their diverse origins, institutional settings, organizational locations, missions and faculty competencies, have developed curricula reflecting considerable variation.
in attention to elements of the common curriculum components. Some give more attention to management, while some give more attention to policy, and yet others emphasize analytical skills.

**Incorporating E-government in the Curriculum**

Most American programs have struggled with the question of what to cover with respect to the management of information and how to deliver that component of the curriculum. Many programs have interpreted this to mean training students to be knowledgeable users of computers for data analysis and report preparation. Others have given some attention to subjects like database management. Still others have attempted to provide broader coverage of the management and use of information in organizations. E-government broadens the knowledge and skill base with respect to computerization and information that demands coverage, but like other components of information and computerization, it raises much more than technological and information management questions, as is illustrated in a recent article by Kim and Layne (2001).

In their article, "Making the Connection: E-government and Public Administration Education," Kim and Layne (2001) provide an overview of the effect of e-government on citizen transactions with government, discuss issues that it raises, and assess its potential to transform how public administration is taught. They note that e-government alters citizen expectations about services. This leads to changes in external and internal government processes and shifts the focus from the agency to the service. It contributes to enhanced demands for efficiency, effectiveness, and accountability, while opening possibilities for greater citizen access to government. They suggest that it makes demands on government functions across the spectrum and leads to a need for new perceptions of leadership. One of the points they make is critical for thinking about how to prepare future managers for their careers. They say it will transform the way government conducts business.

In turn, this transformation will create a second transformation: the perception of information technology by government managers and executives. In the past, information technology was perceived as a function to be performed by a director of an information services department in a manner similar to financial and human services issues. In that model, the information services office was simply a staff function separate from executive and line functions. This perception must change with e-government (Kim and Layne, 2001, p. 232).

This leads Kim and Layne to three primary suggestions. Governments need (1) new styles of leadership, (2) ways to rethink how services are provided and (3) the capacity to deal with organizational culture to facilitate changes needed for e-government. They suggest giving chief information officers more authority in the operations of organizations, presumably as a way of integrating services and maximizing information technology's impact on the organization and its services. They also offer specific suggestions for the incorporation of e-government in the public affairs curriculum. They note, first, that earlier studies had examined the place of information technology in the graduate public affairs curriculum. Kiel (1986), in a study of 184 programs offered by member institutions of NASPAA, reported that respondents did not think they needed to change their core curricula to add a course on information technology.

Instead, they favored integrating information technology in existing courses. A report from the NASPAA Ad Hoc Committee on Computers in Public Management Education suggested that programs should require "three levels of computer literacy: (1) the ability to use the technology in their own work, (2) the ability to use the technology of the organizations they manage, and (3) the ability to develop policy for the effective use and control of the technology for strategic as well as for operational advantages (Kraemer, et al., 1986, p. 595)." The Ad Hoc Committee suggested that information