

Today, digital government (DG) research is being conducted all over the world. Most of this work focuses within the geographic and political contexts of individual countries. However, given the growing influence of global economic, social, technical, and political forces, the questions embedded in digital government research are now expanding to international dimensions. A reconnaissance study such as this one focuses on the defining characteristics of a topic rather than an in-depth analysis. In this report, we describe the size, scope, variety, and trajectory of the field. We have not exhaustively analyzed this body of work, nor have we attempted to evaluate its quality. Rather, we present our findings on the current nature of international digital government research and illustrate it with selected studies and organizational profiles.

This reconnaissance study is part of a multi-year effort funded by the United States (US) National Science Foundation (NSF) to create a framework for a sustainable global community of digital government researchers and research sponsors. It takes a broad look at the current state of international digital government research to identify its main contours and current directions. International digital government research explicitly focuses on understanding topics that cross the jurisdictions, cultures, or customs of different countries. This report provides a baseline against which to measure the future development of internationally-oriented digital government research.

This study relies on literature reviews, web searches, and documentary analysis to address broad questions about the scope and direction of international digital government research between 1994 and 2008. Overall, we found 276 articles and reports published in English in forty journals, the proceedings of thirteen conferences, and the Web sites of twelve research-oriented organizations. The journals that published international digital government research included a mixture of public policy and management, information systems and management, and dedicated e-government or digital government journals. The conferences cover general information science, information systems, or government conferences with significant e-government tracks, plus conferences devoted to e-government research. This body of work is a small fraction (7-9 percent) of all digital government research published during the same period. The research varies considerably in scientific rigor, with more recent work exhibiting increasingly higher quality data and methods.

Generally, there was an upward trend in the total number of internationally-oriented publications until 2006 when the numbers began to decline. The largest number and greatest diversity of publications specific to international digital government appeared in 2004 and 2005.

We organized these publications into six categories: comparative studies, benchmark reports, regional studies, fundamental issues, best practice studies, and transnational studies. Comparative studies comprised about one-third of the articles found for the years we examined, and benchmarks one-quarter. Fundamental issues and regional studies made up another quarter. Best practice and transnational studies represented much smaller portions of the total (nine percent and seven percent respectively).

Comparative studies represent the largest proportion of the articles we found as well as the earliest examples, dating back to 1994. Many comparative studies examine countries within the European Union (EU), or other highly developed countries. Comparative studies usually focus at either the national or municipal level and cover a range of topic areas including policy, implementation, management, impact evaluations, and themes related to democracy. Of the articles we sampled, two main areas emerged – (1) a strong emphasis on reviewing different countries' practices or models, and (2) research that challenges or extends existing frameworks to include contextual factors such as culture, national political structure, and social norms.

International digital government benchmark studies are well established and widely disseminated. Several have been published over consecutive years starting in 2001 by large intergovernmental entities such as the United Nations (UN), the World Bank, and the International Telecommunications Union. Government entities have also financed benchmark studies conducted by universities or private enterprises. Topics include government online services, web site quality, maturity, and penetration. In addition, citizen demands, preferences, and perceptions are often benchmarked. A variety of methodologies, standards, and definitions were present in the sample of benchmark reports we reviewed making it difficult to compare findings or to reach broadly consistent conclusions across sources or time periods. The number of benchmark studies declined substantially in 2008, possibly due to rising criticism about how these studies are designed and used.

Regional studies, fundamental issues, best practice, and transnational categories represented smaller proportions of the research literature. Regional studies often focus on a single world region or compare one world region to another. Research on regional concerns is concentrated in Europe, but we also found articles that addressed Africa and South America.

Fundamental issues studies generally focus on governance and strategy issues, success and failure factors, research reviews, evaluations, and development of explanatory models and frameworks. Much of the

theory-building work we uncovered falls into this category.

Best practice articles in our review provided descriptive “snapshots” of how countries or municipalities around the globe are realizing digital government. Best practice articles mainly examined organizational and technical issues associated with e-governance, online participation, and effects on democracy. They tend to rely on case stories rather than structured forms of analysis.

We found several different kinds of transnational studies. The majority of transnational research publications focused on pan-European issues that address the unification goals of the European Commission. Some transnational work focused on two or more countries working together to solve a shared problem; other work investigated how the actions or issues of one country impacted another country. In addition to Europe, we also found transnational work focused on the Caribbean, Latin America, the United States, and Canada.

International digital government research is conducted by individual scholars as well as by large and small organizations. The work is supported in a variety of ways from major, multi-year grants from government organizations, to self-funded projects sponsored by businesses as well as public and nonprofit organizations, to independent work by single investigators. There appear to be three main categories of researchers – large intergovernmental organizations and multinational corporations (such as the UN, Organization for Economic Cooperation and Development (OECD), and Accenture), academic institutions and nonprofit research centers (some involving multi-organizational partnerships), and individual scholars.

A mixture of government agencies, international governmental organizations, private industry, think tanks, and non-governmental organizations have sponsored significant programs of international digital government research. Global intergovernmental organizations usually sponsor global studies encompassing most or all countries. Occasionally, they concentrate on a specific group of countries, usually defined by their common level of economic development. Most of these studies concentrate on developing countries with the aim to promote economic and social development. The European Commission Directorates General for Research and for Information Society and Media have sponsored a large number of international projects that are diverse in topic and approach, but all address in some way the overarching themes of European unification.

Government research organizations fund mainly university-based scientific research, although there are some significant variations among countries. For example, the US National Science Foundation (NSF) funds university research whose purpose is to advance all aspects of science and engineering, except medical science. In comparison, the EC funds not only university-based researchers, but often funds work by private companies and public-private teams.