

# Chapter 16

## Assessing E-Government Success Strategies using Internet Search Data

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### ABSTRACT

*Evaluating e-government programs can be a challenging task. While determining program features and capacity are relatively straightforward processes, exploring the more dynamic nature of citizen response to e-government is difficult. Fortunately, recent advances in Internet search technology offer researchers new opportunities to address these research questions. Innovations, such as Google Trends and Google Insights for Search, have made longitudinal data on Internet searches accessible to scholars. The availability of this data opens a number of possible research avenues regarding e-government.*

### INTRODUCTION

E-government involves the use of information and communication technologies in the Web-based or digital delivery of government services (Davidson, Wagner & Ma, 2005; Gil-Garcia & Pardo, 2005; Helbig, Gil-Garcia & Ferro, 2005; Noveck, 2009; West, 2005). In the past three decades, governmental agencies across the globe have

implemented e-government initiatives designed to provide information, conduct public services, and increase operational efficiency (Gil-Garcia, 2005; Manoharan & Holtzer, 2012; Noveck, 2009; West, 2005). If these strategies are to achieve the promised increases in productivity, efficiency, and quality of service, they will require careful and rigorous study (Gil-Garcia, 2005; Gil-Garcia & Pardo, 2005; Helbig, Gil-Garcia & Ferro, 2005).

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In recent years, researchers have made important strides in the evaluation and assessment of e-government efforts (Gil-Garcia, 2005, 2007; Gil-Garcia & Pardo, 2005; Heeks & Bailur, 2007; Luna-Reyes, Gil-Garcia & Romero, 2012). Gil-Garcia (2005), for example, identified the organizational, behavioral, and contextual factors that contribute to the success of information technology initiatives and highlighted the significance of studying the factors in relation to one another. Gil-Garcia and Pardo (2005) studied how research findings in the areas of e-government initiatives, information systems, and public administration reach practitioners in the field, while Heeks and Bailur (2007) critically evaluated the state of e-government research literature. Luna-Reyes, Gil-Garcia, and Romero (2012) offered a substantial review of previous e-government success evaluation efforts and proposed an elegant, multi-dimensional approach to the issue of documenting e-government success.

These conceptual and methodological advances are promoting the cause of evidence based e-government practice. They have added to the knowledge base by raising critical questions that must guide further inquiry. However, there has been little study of citizen responses to e-government initiatives. This gap can be explained, in part, by the difficulty of collecting usable data on this topic.

In this chapter, we will discuss how practitioners and scholars might incorporate a new data source, Internet search data, into their e-government assessment and research efforts. While there are a number of systems and tools available, this discussion will concentrate on six Google products (Google Trends, Google Insight for Search, Google Trends for Websites, Google Hot Trends, Google Correlate, and Google Zeitgeist) and the opportunities they present for professionals interested in improving e-government. These powerful products are accessible to even the least sophisticated users. We will address the potential

uses of the technology, the limitations of the data, and the design and analysis considerations for this type of study. We will also suggest the proper use of this resource within the research process.

## **BACKGROUND**

Throughout the world, governments are faced with tight budgets, economic reversals, and competing claims on resources. As public funds become scarce and austerity budgets become more the norm than the exception, we are seeing greater conflict and more civil unrest over budget priorities. The emergence of the Tea Party in the United States and the Occupy Wall Street Movement worldwide demonstrate how citizens can mobilize to express their views. This is not an easy time for public managers to propose new programs or to advocate for existing programs.

At the same time that public funding is diminishing and citizens are organizing, the evidence based policy movement has emerged (Brownson, Fielding & Maylahn, 2009; Head, 2008). Beginning in public health, the use of evidence to shape and define public policy is a growing trend. In this changing milieu, simplistic, vague, or unrealistic measures are no longer sufficient to justify the expenditure of scarce public resources. While preference studies will always have some role in the policy making process, research that documents actual demand and effectiveness will be the key to initial and continuing funding for public programs.

The confluence of these streams, combined with political issues, massive improvements in technology, and changes in corresponding institutions, have created a perfect storm for e-government advocates. It is imperative that practitioners and researchers generate clear and compelling evidence of the success of e-government initiatives, which means documenting that both the approach and the strategies are effective

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