

Chapter 3

Explaining the Global Digital Divide: The Impact of Public Policy Initiatives on E-Government Capacity and Reach Worldwide

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ABSTRACT

The rapid development of information and communication technologies (ICTs) has created an environment for citizens to have greater access to their government and to make citizen-to-government contact more inclusive. Previous research does not provide a comprehensive explanation for variation in recent e-government initiatives and, in particular, the impact of national public policy initiatives that seek to expand access to ICTs. This chapter examines the global digital divide by analyzing the impact of national policies on the ITU's Digital Opportunity Index and the UN's Web Measure Index in 171 countries. A multivariate regression analysis shows that when controlling for economic, social and political development, there is greater capacity for e-governance in countries that have a regulatory authority for telecommunications, competition in telecommunication industries, and higher financial investment in technological development. The analysis also shows that none of the examined policy initiatives appear to affect the reach of ICTs within countries.

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INTRODUCTION

E-government refers to the use of information and communication technologies (ICTs) to provide and improve government services, transactions with constituents, and connections with other arms of government (Fang, 2002). In theory, the rapid development of information and communication technologies (ICTs) over the past 25 years should have created an environment for citizens across the globe to have greater access to their elected representatives and policy makers and to make citizen-to-government contact more inclusive. In practice, the realities of e-government are more complicated. For businesses and the middle class in many countries, the benefits of e-government include better access to public information and improved delivery of government services. For the less fortunate and more isolated members of society, e-government and advances in technology can help overcome the geographical, institutional, and social barriers to information and communication technologies. In the early stages of development, however, new technologies may reinforce or even widen existing economic, political and social inequalities between the haves and have-nots (Forestier, Grace & Kenny, 2002; Guillén & Suárez, 2005; van Dijk, 2005).

Concerns over an emerging “digital divide” between developed and developing countries also have captured the attention of researchers and policymakers and now is seen as significant a problem as the divide within national boundaries (*The Economist*, 2005; Hudson, 2006). Much of the previous research supports the view that technological advances mostly have created new or exacerbated existing inequalities between the information rich and poor, both within nations and between nations (Mossberger, Tolbert & Gilbert, 2006; van Dijk, 2005; Yates, McGonagle & Tawileh, 2008). Most of these studies, however, have tended to be either largely descriptive or qualitative case studies of a limited number of countries. While a few of these studies have at-

tempted to provide comprehensive explanations for the global digital divide, almost all have been hindered by access to recent data for a large number of cases (Balioune-Lutz, 2003; Guillén & Suárez, 2005; Robison & Crenshaw, 2002; Zhao et al. 2007). None of the larger-N studies (Azari & Pick, 2009; Chinn & Fairlie, 2007; Fuchs, 2009; Kim, 2007; Norris, 2001; Pick & Azari, 2008; West, 2005), moreover, have assessed the impact of national public policy initiatives that encourage e-governance and expand access to ICTs and, as a result, mitigate the advantages enjoyed by the most affluent countries.

This chapter examines the global digital divide by analyzing the impact of national policy initiatives on the availability of e-government resources and the public’s access to telecommunication products and services. After reviewing the findings from previous cross-national analyses and numerous case studies, we develop a series of testable hypotheses on the impact that national strategic planning, deregulation of the telecommunications industries, and financial investment in ICTs have on a nation’s performance in developing e-government capabilities and in promoting opportunities for citizens to participate in the global information society (G-8, 2000; Porat, 1977). To test our hypotheses, we use multivariate regression analysis to estimate the effects of policy variables on the United Nations’ Web Measure Index and the International Telecommunication Union’s Digital Opportunity Index in 171 countries. We show that when controlling for measures of economic, social and political development, public policy initiatives at the national level have a strong, significant impact on the development of e-governance. These same policy initiatives have little or no impact on increasing the diffusion of ICTs, however. We conclude with a discussion of why policy initiatives have not always been able to bridge the digital divide and suggest alternatives to help lesser-developed countries increase access to technology for their citizens.

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