Chapter 7

Delineating Three Dimensions of E-Government Success:
Security, Functionality, and Transformation

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ABSTRACT

This chapter draws upon the historical evolution of e-government and at the extant body of knowledge in order to delineate the dimensions that are critical for the success of the use of Information Communication Technologies (ICTs) for purposes of governance. Evaluating the impacts of technology adoption in the public sector is an intrinsically complex process. However, given that currently governmental spending on ICT projects rivals and at times even surpasses allocations for capital developments, the need for an evaluative framework becomes rather obvious. Based on multiple scholarly accounts and practical examples, this chapter suggests that the success of e-government should be examined along three chief dimensions: security, functionality, and transformation. All three vectors are highly interdependent, and it can be argued that the success of e-government in the long run is not possible if significant shortcomings are observed along any one of the three aspects.

INTRODUCTION

Technology has always played an important role in the evolution of humanity. Although change has been a constant characteristic associated with adoptions of new technology, it spurred historical transformation only on a few occasions. The first and second industrial revolutions represent classic examples of fundamental changes in the nature of the social context that were induced by technology. Along these lines, scholars believe that the world is currently in the midst of another revolution - an informational (Nye, 2002) or knowledge one (Milakovich, 2012), supported by myriads of Internet-based digital platforms.

Yet, the Internet is not only new and revolutionary - it is "different" (Milakovich, 2012). There is something inherently controversial about the capacities and dynamics offered by digital platforms. Unlike previous technologies, which were thought of as revolutionary when introduced, such as the internal combustion engine, electricity or the

radio - the implications of the uses of Information Communication Technologies (ICTs) are more difficult to trace, predict and significantly more responsive to political and institutional structures (Fountain, 2001; Milakovich, 2012). In short, unlike an engine, the meanings and implications associated with the Internet are more dependent on what the digital platforms are "used for," than on what they were intended by design "to do." It is within this context, that it can be argued that ICTs represent one technological breakthrough that could dramatically change administration. Although transformation is one possible outcome of digitalizing governance, such effect is by no means guaranteed. Hindman (2009, pp. 13-14) notes that "the architecture of the Internet does tell us much about the possibilities of the medium. Yet the understanding of the Internet's infrastructure that has pervaded most discussion of the medium is incomplete. The various pieces that make up the architecture of the Web function as a whole – and that system is only as open as its most narrow choke point." As such, the uses of technology in governance are bound to come with a great deal of momentous shifts (not all positive), but also with high levels of ambiguity and uncertainty. In this sense, tracing, understanding and managing the digitalization of governance becomes extremely challenging. Consequently, "e-government success" should be concurrently perceived both as a value-laden concept and as an outcome-based evaluation.

This chapter draws on the body of literature on e-government to suggest practical ways of deconstructing the complexity associated with digital initiatives. It is argued that in order for digital government to become a workable reality, rather than a simple rhetorical construct, it is imperative to develop applied understandings in terms of appropriately evaluating and motivating successful implementation. The chapter discusses the evaluation of e-government success along three interdependent dimensions: security, functional-

ity, and transformation. In each case, practical suggestions are made.

The analysis in the chapter is organized within three main parts. The first part will develop historical and contextual understandings of e-government. Here, it is suggested that many of the challenges that are encountered today within the adoption of digital platforms can be traced to the incongruousness between e-government rhetoric, underlining political discourse, and implementation realities. The second part of the chapter will delineate the current status, challenges, and lessons from the global diffusion of e-government frameworks. Finally, the third part will introduce the three evaluative dimensions.

FROM ARPA TO E-GOVERNMENT

A combination of research within academia, government and industry in the 1960s, under the umbrella of Advanced Research Projects Administration (ARPA)[1], culminated in 1971 with the first sent e-mail (Milakovich, 2012). ARPANET, one of many original networks, could be considered as the direct precursor of what today is known as the Internet. Throughout the 1980s the technology, almost seamlessly, diffused throughout the space of academic institutions, public agencies and corporate sector. In 1993 a group of University of Illinois students introduced Mosaic, the Web's first graphical browser (Hindman, 2009); all of the sudden, the Internet became manageable, fun and "for the people." By mid-1990s, the last major regulatory restrictions were lifted and the Internet gained its truly global character. Nye (2002) identifies three critical contextual trends that have led to such an astonishing evolution: globalization, marketization and the information revolution. On the one hand, after World War II, there were increased pressures, supported by a market driven narrative, to provide information and access to markets around the world. On the other hand, technological advancements led to dramatic

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