Chapter 16
Web 2.0 Applications and Citizen Relations through E-Government Websites

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ABSTRACT
This research will focus on constructing an analytical model for Web 2.0 applications through making a systematic analysis on emerging web practices, to talk about a strategic, systematic plan of Web 2.0 in e-government Web sites. To achieve this mission, we suggest applying dialogic communication theory (Kent & Taylor, 1998) that has been developed in public relations, to create an analytic model of the various types of Web 2.0 applications for building better e-government Web sites.

INTRODUCTION
In recent years, we have witnessed a series of new Web applications change the way that people communicate and build relationships with others. The emerging applications, generally called social Web or Web 2.0, encapsulate the idea of the proliferation of interconnectivity and interactivity of Web-delivered content by accelerating users’ participation in online communities. The Web sites embracing Web 2.0 capabilities can facilitate two-way communication, information-sharing, and collaborative work in virtual space.

Thus, to build positive relationships with citizens, many IT vendors and service providers are making widespread investments to embrace Web 2.0 capabilities on Web sites. For instance, according to a recent survey of executives worldwide (Bughin & Manyika, 2007), more than three fourths say that they are already investing in Web 2.0 trends and planning to increase their investment in the near future.

Although Web 2.0 technologies are becoming mainstream both in consumer and business contexts, many practitioners involved in e-government Web sites are still skeptical. Web 2.0 is an important phenomenon that should not be ignored as hype or a passing fad. This chapter will help governments understand Web 2.0 and its potential so that
governments can harness Web 2.0 effectively in the context of e-government Web sites.

Up until now, however, only a few research essays have talked about the emerging applications in building e-government Web sites, therefore an applicable analytical framework and systematic plan to help governments develop e-government Web sites are lacking. Thus, this research will focus on constructing an analytical model for Web 2.0 applications through systematically analyzing emerging Web practices, to talk about a strategic and systemic Web 2.0 plan in constructing e-government Web sites. To achieve this mission, we suggest applying dialogic communication theory (Kent & Taylor, 1998), which was developed in public relations, to create an analytic model of the various types of Web 2.0 applications to build a better e-government environment and better relationships with the public.

This chapter consists of two main sections. The first section provides a brief overview about the definition of and the technological characteristics of Web 2.0 in comparison with its predecessor, Web 1.0. Then, the section discusses how the improved interactivity and user’s controllability of Web 2.0 are changing the paradigm of Web-mediated communication by reviewing the approach to indexing and retrieval methods of information, the role of actors, the concept of Web design, and communication type. The second section attempts to introduce dialogic theory (Kent & Taylor, 1998) that has been developed in public relations, to create an analytic model of the various types of Web 2.0 applications for building better e-government Web sites. Three sub-sections organize this chapter: (1) theoretical ideas of dialogic theory, (2) five dialogic principles, and (3) categorization of the web 2.0 features. The last section includes the potential of encompassing Web 2.0 capabilities in e-government Web sites by five dialogic principles.

**BACKGROUND**

Recently, the term Web 2.0 has become one of the most frequently used buzzwords. The term, first presented by Tim O’Reilly in 2004, has clearly taken hold, with more than 140 million citations in Google. Web 2.0 has largely been popularized by IT professionals, business, and Web users to name a quickly growing set of Web-based applications. However, despite the huge popularity of the term, there is still disagreement about what Web 2.0 means. Most people believe that Web 2.0 is the next generation of the Web, but there is no exact universally accepted definition. Disagreement exists mainly because the term Web 2.0 is too nebulus and broad to be summarized in a specific, uniform concept. Web 2.0 covers a wide array of Web applications that share little in common, from advanced search engines, syndication technologies, and social networking to virtual reality.

Thus, instead of a uniform definition, the core tenets of broadly defined Web 2.0 technologies should be found, and both technological and sociological aspects of Web 2.0 should be considered to define what Web 2.0 stands for. To find the shared tenets of various Web 2.0 technologies, this section first explores the concepts related to the use of Web 2.0 tools, in particular comparing the technological differences with its predecessor, Web 1.0. We then move to a discussion of the challenges and opportunities of Web 2.0 for governments to interact with their citizens through the Internet.

**What is Web 2.0?**

Most of the recent attempts to define Web 2.0 derive from the original texts of Tim O’Reilly, an inventor of the term and president of O’Reilly Media Inc. When Tim O’Reilly suggested the term at a conference brainstorming session, he used the term to emphasize the advantages of new technologies supporting collaboration based