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Problems Associated with Managing Distributed Organizational Web Sites: A Modified Goal Theory Approach

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Organizational Focused Topic/Keywords: web management, goal theory, goals, problems, environmental scanning, distribution of computing

Abstract

This paper describes an exploratory, comparative case study of the perceived problems associated with managing distributed organizational web sites. The study has three goals. First, the study seeks to compare problems, goals and external stimuli experienced by web managers in centralized and decentralized IT support units. Second, the study seeks to investigate the unit level contextual factors important to understanding differences in these constructs. Finally, the study will evaluate the usefulness of a modified goal theory as a framework for studying individual's perceptions of IT related problems. The researcher will employ semi-structured interviews across twelve individual level cases.

Introduction

Betty is a web manager working in a centralized IS office. Her job requires her to manage an umbrella web site for her organization while also working with independent sub unit web sites and information content providers to create an overall organizational web presence. Betty described her biggest web management problem as having "to manage without control." Betty’s situation is not unique. The distribution of computing into organizational sub-units in the 1990's, coupled with the World Wide Web's (web's) explosion in popularity, has led to the diffusion of web sites and web management responsibilities within organizations. This has created a situation where, in many cases, central information systems department web managers (cwm) and distributed sub unit web managers (dwm) within the same organization maintain independent, but linked web systems.

Betty’s problem describes just one example of the many management problems created by the distribution of web management in organizations. What types of management problems does distributed web management create? Do perceptions of management problems differ based on the web managers organizational position (dwm or cwm)? The increasing importance of the web for organizations makes a clearer understanding of web management problems imperative. Management problems may affect a web site’s overall effectiveness and its users’ satisfaction. This study explores the problems which web managers perceive and examines how dwm and cwm differ in their perception of these problems.

Research Background

Many organizations consider the web an increasingly important medium for communications and business processes. We have little empirical understanding however, of the types of problems which organizations experience in managing distributed organizational web sites (Bieber et al., 1998). Current IS and information science web research focuses on implementation and diffusion issues (Jarvenpaa & Ives, 1996; Chatterjee & Sambamurthy, 1997; Wong & Romm, 1997) design assessment, users needs and information policy (Small & Arnone, 1999; Hert et al., 1997; Eschenfelder et al., 1997).

Furthermore, while the IS and social/organizational informatics literature has greatly increased our understanding of organizational problems related to technology and technology management (e.g. Orlikowski, 1996; Barley, 1986, 1996; ; Kling & Scacchi, 1982; Markus & Robey, 1988; Leonard-Barton, 1988; Zuboff, 1988) research has not focused specifically on web site management problems.

Conceptual Basis

The study employs a modification of goal theory as a conceptual lens to guide exploration of web management problems. (Bandura, 1988; Pounds, 1969; Cowan, 1991). Goal theory suggests that in order to understand why an individual recognizes a problem, one must understand that person’s internal goals and the external stimuli they perceive (Berthon et al. 1998; Kiesler & Sproull, 1982; Galbraith, 1974; Emmons, 1992; DeLong, 1982). The study framework modifies goal theory by adding a construct to specifically focus investigation on the influence of the organizational position on individual problem perception (Kiesler & Sproull, 1982; Weick, 1995; Landry 1995; Lawrence and Lorsch, 1967; Child 1972). Figure 1 illustrates this framework.
Using the theory elaboration perspective (Vaughan, 1992), the researcher will evaluate the usefulness of the modified goal theory as a conceptual framework and make suggestions to broaden its explanatory powers.

Study Constructs

The study’s above described analytic lens focuses inquiry on four constructs: problems, goals, perceived external stimuli and organizational position factors. This section will provide more detail about the research design’s treatment of these four constructs.

Goal theory defines problems as a negative perceived discrepancy between internal goals and perceived external stimuli. Because the researcher is interested in perceived problems, she operationally defines problems in terms of the participants’ descriptions of problematic web management situations. The researcher will ask the participants to describe three web management problems that they currently experience. In order to limit the scope of the study, the researcher will ask the participants to describe problems that relate to the distribution of web management responsibility within an organization. This limits the types of problem data which the researcher can elicit, but will allow a deeper understanding of this subset of problems.

The study focuses on “mid-level” goals. The conceptualization of mid level goals is based on earlier hierarchical goal models (Powers, 1973; Carver and Scheier, 1981; Emmons, 1989). It operationally defines mid level goals as those goals that could apply across different contexts and do not specify context specific actions. Mid level goals are neither universally applicable (I want people to respect me) nor completely idiosyncratic (I need to finish this memo before lunch). Focusing on these goals will allow the researcher to see meaningful goal patterns between cases.

The study draws on previous research in information processing, environmental scanning, detection failure and information seeking behavior to operationalize external stimuli (e.g. Rivera et al. 1981; Aguilar, 1967; Kiesler and Sproull, 1982, Jones and McLeod, 1986; Choo and Auster 1993). This research suggests the use of three variables for the operationalization of external stimuli: source of stimuli (source location within or external to organization), form of stimuli (format and media) and subject matter or focus of stimuli (as perceived by the stimuli recipient).

The study defines organizational position factors as those factors, related to the participant’s position as a dwm or cwm, which contribute to greater understanding of the problem perception process. The study operationally defines organizational position factors to include three variables: degree of distribution of web governance (Fry, 1982; Perrow 1967; Mohr 1971; Kiesler and Sproull, 1982), unit and organizational goals and unit and organizational policies and procedures (Perrow 1967; Mohr 1971; Child 1972; Kiesler and Sproull, 1982). The researcher chose these factors due to their applicability to unit level research, their acceptance in the literature and their potential to add to our understanding of differences in problem perception. The researcher does not assume that these variables provide a comprehensive contextual model. The researcher has chosen these variables as guides, but will remain open to the emergence of other important contextual variables from the data.
Study Approach

The study will employ a qualitative exploratory case study approach, combining semi-structured interviews, document analysis and observations to collect data related to the four study constructs for each case (Yin 1990; Walsham, 1995; Marshall & Rossman, 1989). The study treats individual web managers as discrete cases, so the researcher collects data about the four constructs for each participant case. The researcher currently plans to include a minimum of twelve cases (6 cwm, 6 dwm) from three organizational sites in drawn from large organizations in manufacturing, government and service industries. Although the researcher anticipates a minimum of twelve cases, data collection will continue until the researcher has achieved theoretical saturation for the problem and goal constructs (Glaser & Strauss, 1967).

The researcher will choose organizations and individual researcher will select research sites and individual participants using a mixture of maximum variation sampling and criterion sampling (Patton, 1990). Study sites and participant cases must meet key research criteria. For instance, the organization must employ a technology management structure that supports both cwm and dwm, it must have hosted a web site for at least one year and it must have at least one publicly accessible web site (internet). Similarly, participant cases must hold positions as either cwm or dwm and they must spend at least 50 percent of their working time on web management related tasks.

Within the pool of organizations and web managers who meet these criteria, the researcher will select participants using the maximum variation sampling technique. Maximum variation sampling allows the discovery of themes and patterns important across a range of different contextual situations (Patton 1990).

Importance of Research

The results of this study will contribute to theory, data elicitation techniques, web management, distributed IT management and web management policy and procedure development. First, the study draws upon and hopes to make contributions to several areas of theory including problem perception, goal theory, goal hierarchies and information processing. Second, the study adapts and revising a methodology from advertising research known as “laddering” (Reynold and Gutman, 1988). Modified laddering provides a framework for the elicitation of goals and external stimuli data from within a discussion of a particular problem. Third, study results will provide a rich, detailed description of web management work and organizational web managers. This description lays important groundwork for future studies of web management. Fourth, the study contributes to the distributed IT management literature by further developing definitions drawn from this literature (e.g. Brown and Magill, 1998). Finally, the study will make recommendations for the development of web management policies and procedures to improve web management practice.

Sources available on request from kreschen@mailbox.syr.edu