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# Critical Approaches to Information Systems Planning: Refining the Research Agenda

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## Abstract

This paper reappraises the managerialist model of organizations which underpins most current approaches to IS planning. There is much criticism of the managerialist model as a flawed approach because it assumes that organizations are unitary entities which act rationally in the pursuit of system goals. This model ignores the different interests among individuals and groups in an organization and the significance of conflict and power in shaping organizational practices. Because IS planning constitutes a major site of organizational activity, it is important that research in this area theorizes organizations in an inclusive and informed way. Insights from Critical Social Theory can help analysts of the IS planning process understand the dynamics of that process more fully. It provides a framework for an improved research agenda to gain this understanding.

## Introduction

Strategic information systems planning (SISP) has maintained a pre-eminent position as one of the critical management issues over the last 25 years (Brancheau and Wetherbe, 1987; Niederman, Brancheau et al. 1991; Galliers 1993; Galliers, Merali et al., 1994; Pervan, 1994; Brancheau, Janz et al., 1996). There is much evidence, despite decades of research and practice, that it still often produces poor results. We propose an approach to theorising IS planning processes which leads to a new research agenda.

The paper begins with a brief description of IS planning and the problems that arise from traditional approaches. We describe traditional IS planning and some of the underlying assumptions and principles upon which IS planning methods have been built. We argue that the traditional and dominant view of organizations among IS researchers and practitioners provides a poor foundation upon which to conceptualize and undertake IS planning. We propose a different theoretical model of organizations and suggest how this may improve formal IS planning processes. Finally, we propose an agenda for research which will improve our understandings of

planning processes and generate new planning constructs to facilitate more effective IS planning.

Strategic information systems planning is defined in the literature as the process of identifying a portfolio of computer-based applications that will assist an organization in executing its business plans and realising its business goals (see Ward, Griffiths et al., 1992; Segars, 1994; Lederer and Sethi, 1996). SISP provides a mechanism for assessing the firm's technological resources, determining technological needs for future competitive conditions, and identifying new avenues of action in the quest for competitive advantage.

## The Problems With Strategic Information Systems Planning

Among all the varied tasks that managers are called upon to do, few affect an organization's performance more lastingly than do the tasks of charting an organization's future course (Thompson, 1989). IS planning is arguably the most crucial IS activity because it is most closely related to strategic business questions such as what business should the organization be in, and what type of organization should it be? Moreover, planning decisions will cause flow-on effects during IS development and implementation activities that will not be ameliorated easily by belated consideration of issues that could have been identified and dealt with as part of the planning process. And yet, given the importance of IS planning and the long history of research into and practice of IS planning, SISP has long been recognised as an intricate and complex activity replete with problems (Salmela, 1996). Information systems projects identified by formal planning processes are often not developed, or, if developed, the resulting systems substantially fail to meet the objectives set for them. Lederer and Sethi (1988) found that only 24 per cent of the projects in the strategic IS plans surveyed had been initiated more than two years into the implementation horizon. In a study of four Norwegian organizations, approximately 42 per cent of the projects in the strategic IS plans were implemented after five years (Gottschalk, 1995). Ward, Griffiths et al. (1992:97) found that "despite a belief in its importance, in

the past decade many organizations have developed perfectly sound IS strategies that have been left to gather dust, or have been implemented in a half-hearted manner". Taylor (1997:336) also found that "all too often strategies remain 'on the page' and are not implemented". Falconer and Hodgett (1995) report that, in large Australian companies, fewer than half the systems needs identified through strategic planning processes were ever developed.

Although there are different approaches to SISP, Samela (1996) confirms that, within the traditional IS literature, there is a fairly well established view of how organizations are expected to implement a strategic IS planning process. This view is based on several implicit assumptions and almost universal application of the work of Anthony (1965) and Simon (1960). It is to these we now turn.

### **Implicit Assumptions Underlying Traditional IS Planning**

One of the most influential frameworks has been that of Gorry and Scott Morton (1971), based on Anthony's (1965) analysis of levels of managerial activity and Simon's (1960) view of management as problem solving through decision making. Gorry and Scott Morton developed a framework of decision classifications (structured, semi-structured and unstructured) across operational control, management control and strategic planning levels of the organization. Their framework was influential in the development of hierarchies of information systems within organizations. These influential works were part of a movement to establish a science of administrative behavior, the core idea being that human behavior, both individual and corporate is about goal-seeking. Several implicit assumptions underlie much of this tradition of IS planning research and practice. Foremost among these is the conception of organizations as unitary entities. Theorizing organizations affects how we conduct research, what we research and how we practice information systems planning.

Unitary organizations are those typically described in management literature as goal seeking with common objectives and in which conflict is a pathology and power is ignored. The unitary vision of an organization is one of society as an integrated whole with the interests of the individual, the organization and society as synonymous. Political activity is a pathology to be identified and removed. Conflict is a rare and transient phenomenon and power is largely ignored. This model theorizes organizations as entities or systems in which managers make rational decisions on behalf of the organizational entity. Failures derive from a breakdown in the managers' abilities, (e.g. lack of knowledge of the external environment or lack of knowledge about the

organization's real interests). Failure can also occur because of a 'pathological' condition of the organization's structure, processes or culture. Addressing such failure entails bringing the organization back to health so that it can function well as an undivided entity. It is this view of organization that has underpinned most IS research and practice. It is with this view that Gorry and Scott Morton (1971) developed their framework.

As a unitary entity, an organization is seen to act on the basis of undivided organizational interests and to do so *rationally*. The apotheosis of the rational organization is bureaucracy (Weber, 1964) which is founded on a system of *rational-legal* authority (domination). Typically, bureaucracies consist of impersonal rules, the elimination of personal, subjective and affective factors from decision-making, the clear and formal specification of responsibilities and the organization of offices hierarchically (Weber, 1964). Most large-scale organizations display at least some of the traits of bureaucracy (Morgan, 1997) and organizational rationality. Of course, 'rationality' in this context must not be confused with a more popular meaning of 'reasonableness'. Organizations act rationally in the sense that they make use of explicit and limited rules and principles to quantify and assess the impact and costs of decisions. Weber (1930) recognised that the formal mechanisms of bureaucratic rationality may contravene widely-held societal values and, as Salaman (1981) notes, the process of rationalisation has some serious negative consequences. This extensive critique of organizations and rationality has not been incorporated into mainstream IS approaches.

### **Alternative Views of Organizations: Beyond the Unitary Approach**

We can analyze and understand organizations more adequately by focusing on relations between individuals and organization. Organizational theorists such as Morgan (1997) describe three views of organizations and refer to them as *unitary*, *pluralist*, and *radical*. Pluralist and radical views may both be considered as *conflictual* views of organization.

The pluralist model of organizations defines an organization as a coalition of people and groups bound by some common interests but also divided by competing interests. Competing interests are not a sign of pathology but are an endemic and unavoidable characteristic of organizations. In this model, conflict, power and authority are a normal part of organizational life, even in organizations which work well. Rather than seeing interests as residing in the organization as a whole, interests are held by individuals and groups — the interests may be shared or competing. Individuals or groups may wield power and authority, derived from a variety of sources, to advance their own interests.

Alliances may be formed and sometimes interests may be shared to the extent that there is organizational consensus—at least on some matters. There is no one organizational rationality, but a number of competing rationalities attached to different interests.

Unitary views of organizations are fundamental to traditional management theories. Critical management theories embrace conflictual models of organizations. Traditional and critical management theories are contrasted in the following sections.

## Problems with the Managerialist Approach

Alvesson and Willmott (1992) write that the discipline of management is generally understood to be devoted to the (scientific) improvement of managerial practice and that knowledge of management is only of relevance to managers. The literature routinely presents managers as always acting rationally on behalf of the organizational entity while other organization members are presented as subjects of managerial action. Alvesson and Willmott (1992:4) report that “there is a reluctance to question the ‘sacred’ role and prerogative of management” and suggest that in most literature on management, considerations of “many deep-seated features of organizational life — inequality, conflict, domination, subordination and manipulation” are neglected or suppressed in favour of “behavioural questions associated with efficiency and motivation”. Pfeffer (1981) writes that management education and practice are based on assumptions of the legitimate authority of owners and managers and views organizational politics as a pathology.

Pfeffer (1981) further suggests that organizational politics and organizational power are both topics made conspicuous by their absence in management and organization theory literature. Pfeffer suggests that the reasons for this may be found by considering the role of management literature in the management process and the position of power as implied by the various functions served by management literature. This literature serves a variety of functions; in virtually all of which there is a strong component of ideology and values. Topics such as power and politics are basically incompatible with the values and ideology being developed, therefore the topics are ignored. Organizational theorists perform their research and write from an essentially management perspective. Consequently, they and other management researchers and teachers down-play the importance of power and politics. In the case of management students, Pfeffer (1981) states that there is little doubt that one of the important functions of business education is the socialization of future managers. Socialization involves the inculcation of norms and values that are central to the practice of management in a capitalist society and that “there is no norm so central to the existing practice and ideology of management as the norm of rationality”

(1981:11). Pfeffer suggests that management and organizational theorists, while ignoring power and politics, develop excuses for why so much variation in actual decisions and behaviour is missed. Pfeffer acknowledges that there is a somewhat different tradition in Europe, where the treatment of organizations and knowledge about organizations takes on a much more context-specific, historical view.

Knights and McCabe (1998) note that the assumptions of functionalism and systems theory still seem to pervade much of the management literature. A more politically sensitive approach to understanding organizational politics in organizations is advanced by writers such as Mintzberg (1994). These writers identify how organizational change tends to be characterized by political activity between diverse groups. This advance in sophistication of organizational analysis is tempered by a persistence in reducing politics to conflict and treating it as pathological—something to be understood so that it may be eradicated (Knights and McCabe, 1998).

## A Critical Approach to Management Theory

Representing management as a predominantly technical activity creates an illusion of neutrality and management is distanced from the structures of power and interest that are a condition of management’s existence (Willmott, 1984). Alvesson and Willmott (1992) suggest that managers are not unaware of the pressures and contradictions of their management activity. On the one hand, management education furnishes them with a sense of impartiality, professionalism and functional importance. They accept unquestioningly the legitimacy of management authority and the subservient roles of other organization members. Because conventional wisdom marginalizes or trivializes organizational politics, they are prevented from gaining a more critical perspective of their roles (Alvesson and Willmott, 1992).

The *Critical Social Theory* (CST) of Habermas (1984) provides a foundation for scrutinizing these practices. The intention of CST is to challenge conventional and traditional wisdom and counter the development of oppressive practices. Alvesson and Willmott (1992) write that for CST, ‘best management practice’ is not merely about the most technically rational means of achieving organizational objectives, rather it is about its contribution to the progressive objectives of autonomy, responsibility and democracy. CST is not inherently anti-management. Rather “its aspiration is to foster the development of organizations in which communications (and productive potentials) are progressively less distorted by socially oppressive, asymmetrical relations of power” (Alvesson and Willmott, 1992:18). Lee (1999a) writes that CST has not received the attention it deserves in IS research. It is not the purpose of this paper to develop management theories based on Critical Social Theory, rather is to

examine traditional information systems planning and suggest approaches that may lead to improved planning outcomes. In a similar way that it is possible to develop management theories from a critical perspective, so it is possible to examine IS planning and theorize it from a critical perspective. It is to this we now turn.

## **A New Agenda for IS Planning Research**

A seminal paper by Markus (1983:432) proffered the view that “there is reason to believe that, at least in some organizations at certain times, there are situations that do not conform to the Rational perspective”. At the time this view would have seemed radical to IS theorists. Since that time a number of other researchers have encouraged or undertaken research that has highlighted political aspects of IS activity (*e.g.* Hirschheim and Klein, 1989; Hirschheim and Klein, 1992; Klein and Hirschheim, 1993; Hirschheim and Klein, 1994; Myers, 1994; Drummond, 1996; Lee, 1999b). Hirschheim, Klein et al. (1996) developed a framework founded on CST that identifies domains of change and orientations (consistent set of attitudes, beliefs, assumptions and intentions that a planner brings to a process of IS change) for the field of information systems.

Checkland and Howell (1998:68) write that notwithstanding this recognition of the value of interpretive and critical research, “IS conferences and IS literatures do not pay much serious attention to the question of what an organization is.” They further state that “normally, ‘organization’ is not taken to be a problematical concept; notions of organization are usually accepted without being questioned” (Checkland and Howell, 1998:68). In terms used previously in this paper, most IS research and practice is based on a unitary view of organization. We suggest that a new research agenda incorporating a pluralist model of organizations is needed for IS planning.

The development of new IS research agendas is dependent upon there being dissatisfaction with the old agenda and an ability to construct new agendas. Evidence of dissatisfaction with IS planning is provided earlier in this paper. Lyytinen (1992) reports that the IS research community has yet to engage fully in discussion of research strategies and that critical research philosophy remains largely unknown. The IS field is primarily a constructive activity—how to design and deliver a new information system. A small segment of researchers have always focused on describing the actual usage of information systems. These researchers have sought paradigms and methods to allow them to learn of the relationships between social actors and IS activity, but they have had little impact on the dominant “managerial” and “engineering” studies into information technology development and use. Since Lyytinen’s paper there have been indications that more members of the IS community

are undertaking research into these relationships (Falconer and Mackay, 1999).

A new research agenda for IS planning will require the redefining of some key terms and concepts. IS planning has traditionally referred to formal planning activities based on a singular organizational rationality. Perhaps a reference to a wider view of planning was hinted at by Earl (1993) when he reported that the best IS planning was found in organizations that did not really seem to plan. Planning needs a much wider definition. It is likely that IS planning research would benefit from the adoption of a definition that includes a range of individual and group activity by all stakeholders that leads to the decision to commence a new IS project. This would include formal IS planning processes as well as all informal related actions prior to, during, and after the formal planning processes. A new organizational lens will be needed to enable those individuals and groups to be identified and their activities studied. Pluralist models of organizations can facilitate this. The term “effective” is problematical in traditional IS research. It has usually been defined in managerial terms and limited to economic concepts. This term needs a new definition which takes into account multiple organizational rationalities and the various actors who engage in IS planning. A key question in this new agenda will be: what are the organizational and managerial designs that will embrace IS planning that is effective in terms of all (or as many as possible) rationalities?

Planning is crucial for all organizations. A conflictual model of organizations recognizes that actors may be in conflict, whether engaging in formal or informal planning processes, as part of normal political activity. This model will illuminate various competing individual and group interests and alliances that need consideration before any new IS development. Organizations need mechanisms for identifying these competing and overlapping rationalities and balancing their interests. Managers need to know how they can encourage a participatory process that is truly inclusive of the needs of everybody likely to be affected by the new system, how can they identify all who might be affected, how can truly representative groups be accessed to gain these insights, how important is it for different sections of the organization to understand the points of view of other sections within the organization, how important is it to understand others’ motivations and fears? There need to be mechanisms for airing and analyzing different perceptions. Sharing perceptions requires disclosure by individuals and in many organizations with traditional managerial hierarchies and control, this would be difficult to achieve. Disclosure requires an environment in which trust develops between actors. Thus, a revitalized research agenda must also develop a model of trust in organizations and address mechanisms for developing or enhancing trust. If

different perceptions are part of the problems in IS planning, trust must be part of the solution. The implications for organizations and managers are manifest: how to create a trusting environment in which different rationalities are shared and valued?

A new research agenda for IS planning should reject some traditional views of IS. Information systems practice has reinforced managerial ideology by strengthening the instrumental rationality of organizations. Information systems can be seen as devices that increase control and surveillance of the workforce and increase worker alienation. Scandinavian IS studies have often focused on how information systems practice can improve the working life of actors and increase organizational democracy. A research agenda embracing a pluralist organization theory will allow researchers to address these and other quality of life issues that are missed by traditional IS research.

Critical Social Theory has been introduced into the IS field in two ways: as a focus for challenging the established positivist research norms, and as a way of focusing on social actions related to IS activity to build new theories leading to new practices. The first is essential if critical researchers' work is to receive a hearing within the IS community. This is largely accomplished; there is increasing acceptance of research from a critical perspective. The second is still somewhat problematical. For researchers to be able to undertake research into social actions they must have the tools and knowledge to do so. Researchers need to bring into the IS field research tools and theories that are established in other fields and appraise their usefulness for IS research. For example, Habermas' (1984) *Theory of Communicative Action* provides a theoretic basis for such research. Forester (1992) shows how this theory can be used in planning research. A number of researchers have suggested that further research is needed to refine Habermas' Theory and provide guidelines for researchers in the IS field. Researchers need to identify the necessary and sufficient conditions for developing a critical theory for IS. Researchers must be encouraged to learn the skills necessary for critical research. For Critical Theory to become a viable research approach in information systems planning, the community must educate researchers.

A research agenda for IS planning should be developed as a systematic inquiry rather than a piecemeal, fragmentary approach. Such an agenda would ideally set out goals for the research and researchers should be encouraged to contribute to the achievement of the goals. How this might be achieved while encouraging ideas and initiatives that might move those goals, needs careful consideration. Studies are needed to develop new theories of planning and to validate those theories in real organizations. As organizational factors, such as

structures, change, IS planning theories need to be revisited and revalidated.

## Conclusion

There is continued dissatisfaction with the quality of IS planning in many organizations. Current models of IS planning were heavily influenced by Gorry and Scott Morton's framework. Implicit in their framework is the concept of organizations as unitary entities. This paper reappraised the managerialist model of organizations and suggested that it is flawed as it assumes that organizations are unitary entities which act rationally in the pursuit of system goals. This model ignores the different interests among individuals and groups in organizations and the significance of conflict and power in shaping organizational practices. Critical Social Theory was introduced and critical management theories were contrasted with traditional management theories. IS planning constitutes a major site of organizational activity, therefore it is important that research in this area theorizes organizations in an inclusive and informed way. We suggest that a new research agenda is needed incorporating a pluralist model of organizations.

A new research agenda must include the exploration of new methods for identifying stakeholders and understanding formal and informal planning actions as political acts. The challenge to researchers is to develop the research skills and methods needed, to develop new and more extensive models of IS planning and to validate those models in different organizational environments. The challenge to managers is to learn to develop more inclusive views of their organizations and put into practice the findings of this planning research.

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