Systems Analysts Emerge as Leaders; "Framing" Through IS in Contemporary Organizations

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Change. It's constant. It's also very difficult to lead.
– Robert H. Rosen

Today's systems analysts serve as leaders in ways that managers and the analysts themselves may not realize. By controlling access, form, and distribution of information, analysts provide frames for people to organize and interpret much of the stimuli bombarding them. In their role as "framers", analysts help shape perceptions of people in the organization and direct their ways of thinking about organizational issues. Managers may give analysts the authority to decide what a set of reports from a system will look like, which interfaces will be used, which data will be maintained or collected in a database, and what algorithms will be used for decision support. Delegating such tasks has far-reaching implications. Systems analysts and developers need to be cognizant of their leadership role in modern business. They must realize how their framing of information affects decision-making and shapes organizational culture.

Curriculum for MIS (Management Information Systems), or CIS (Computer Information Systems) programs can and should be adapted to include projects and subjects to take students beyond an understanding of traditional management roles and skills. In today's organizations, systems analysts require an understanding of how to use information systems to lead.

Theories of leadership have not traditionally been associated with information systems, but the authors of this paper propose that they could and should be. One modern leadership theory involves the concept of "framing." In their book *The Art of Framing,* Gail Fairhurst and Robert Sarr conclude that to be effective leaders today, managers must manage meaning for subordinates through framing. They also propose that people can learn how to frame (Fairhurst, 1996). Although this book does not tie framing into information systems in any fashion, practicality suggests that people who understand how to use information systems to frame will be the leaders in contemporary organizations.

What is framing? In contemporary organizations, people are constantly bombarded with internal and external stimuli. At a given moment a telephone rings, several people are talking, light streams through a window, a machine hums, a person feels hungry or has a headache, the cursor flashes on the computer screen, and a poster on the wall demands attention. People must limit what they attend to at that moment. They decide what to attend to partially by listening to leaders who put frames around what they consider important. Within any given day, week, or month, significant changes occur in most organizations. Employees must decide how to react to these changes. Leaders lead by creating frames around particular sets of stimuli, and communicating these frames and their significance to their followers. Frames affect whether employees notice problems, and how they understand and act on them (Entman, 1993). Additionally, "frames exert their power not only through what they highlight but also through what they leave out." (Fairhurst, 1996)

Information presented throughout the organization is inevitably framed by the medium used to present it, by the way it looks when presented, by who can access it, by what it stresses, and by what it omits. What an opportunity for leaders in contemporary organizations! People who understand framing as a leadership mechanism, and who at the same time realize the potential of information systems as framing devices will be the emerging leaders in contemporary organizations.

Traditionally in a business, strategic and tactical managers served as leaders for constituents by controlling the information they received to do their jobs. They framed the information and defined its meaning through the ways they organized it. Managers decided which reports would go to which employees, what those reports would contain, and how they would appear. Additionally, managers determined which information would be collected and maintained, and communicated why specific information was important. Employees followed the lead of management by attending to information that was presented as important. Top leaders often hoarded information (Rosen, 1996).

However, in the process of moving from manual systems to computerized systems, many managers began to depend on the advice of systems developers regarding what information could, in fact, be collected or maintained. Efforts were made to alter information in such a way that computers could be easily used to store and disseminate it. Programmers with little business background wrote programs to create reports. After realizing the value of the early transaction processing systems, many managers were willing to let systems analysts decide what information could or could not be provided by a management information reporting system. Because the computers could or could not be easily programmed to do specific things, managers were not able to directly create systems that could recreate exactly the information that manual systems and oral or written communication had provided.

Managers were sometimes not sure what decision support systems could accomplish, and were reluctant to attempt to make the computer do things that seemed troublesome. They waited for systems analysts to tell them what the systems could do. Systems analysts developing systems were often trained to be programmers more than they were educated as managers. They often lacked a big picture organizational perspective. Consequently the information provided by the systems they created tended to be rather limited to quantitative applications. They focused on efficient use of system resources. They discouraged innovative applications because they could not envision procedural algorithms that could be used to solve open-ended problems.

Consequently, as organizations grew steadily more reliant on computer systems for decision-making, managers abdicated a portion of their leadership role to systems analysts and developers. The systems analyst became the entity who framed WHAT organizational information would be provided to employees. The systems analyst became the entity who framed HOW and WHERE this information would

appear. The system analyst determined who would have access, who would have the right to alter the data, and who would gather the information. The system analysts determined which information would be important enough to be collected.

Contemporary organizations depend heavily on information systems to manage employees. Communications often take place over and through office information systems. Presentations and calculations, strategic plans and visions are framed through the software and hardware of management information systems. Systems analysts often create the frames through which the information travels. To create effective frames, these analysts must develop more than technical expertise.

> …technical expertise does not transform a successful IS professional into an effective leader. … exclusive focus on technical expertise and preoccupation with technological currency interfere with attention to the interpersonal and analytical competencies necessary for effective leadership. (Klenke, 1998)

Systems analysts must understand the big organizational picture to frame effectively. Rex Mitchell, a Ph.D. at CSUN, points out that "Framing requires… a thorough understanding of those we are trying to influence." (Mitchell, 2000). The framing of information through the lens of an information system affects the perspectives of people in the organization, and the directions taken by that organization. Framing corporate information affects the organization's culture.

> Finally, in today's complex, uncertain, global environment IS/IT leadership requires sophisticated conceptual and analytical skills since concept formation and idea generation play a critical role in the design of IT for competitive advantage. To this date, leadership training, education and development have yet to be incorporated into management information systems (MIS) curricula to prepare today's MIS graduates for their roles as … leaders. I have yet to encounter a graduate program in IS/IT that prepares students to become change agents, motivators, … that teaches them how to craft, articulate, and communicate a vision, and how to build an organizational culture in which IT and leadership are interdependent and mutually reinforcing. (Klenke, 1998)

Although curricula guidelines for Information Systems programs such as IS'97 do not specifically address leadership theories, they do address organizational skills. Graduates should understand leadership theories, and specifically framing theory.

As organizations increasingly rely on computerized information systems as decision-making aides, systems analysts and managers must realize the leadership roles they fill through their framing of information. Only then can the true power of an information system be realized. Effective framing is a necessary and powerful skill for today's systems analysts as they emerge as leaders in contemporary organizations.

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