

# Best Practices for IS&T Supervisors

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## INTRODUCTION

Researchers over the last decade have generated a body of literature which is informed by management research and theory and tailored to the unique demands that characterize IS&T work. At the industry level, IS&T fluctuates with the supply and demand asymmetry caused by technological advances (Agarwal & Ferratt, 2002a). The changing nature of the industry trickles down to affect IS&T professionals who must continually update their skills in order to prevent obsolescence (Rajeswari & Anantharaman, 2003). IS&T work demands flexibility in responding to customer demands, emerging issues, spontaneously hectic workloads, and frequently unplanned requests. The nature of the work is continuous (frequently 24/7) and often requires the coordination of multiple experts. IT is typically a service function upon which other organizational functions depend. Yet, it is common for IT to be undervalued and unrecognized, unless there is an IT failure. IS&T work may be performed by individuals or teams that may be colocated or virtually connected. Although there has been some debate in defining the parameters of the so-called "IS&T workforce," considerable overlap in skills, educational backgrounds and other domains persist (Kaerst-Brown & Guzman, 2005). The current article defines IS&T

professionals as individuals whose primary job function is the development, installation, and implementation of computer systems or communication technology. Research and best practices literature are reviewed to provide IT managers with an overview and a starting point for workforce intervention and improvement.

## BACKGROUND

IT human capital is seen as a strategic resource and competitive advantage for businesses (Bhardwaj, 2000). Where the IT workforce was once inundated, many researchers and practitioners have raised concern about a shortage of skilled professionals and have noted a corresponding research focus on IT turnover (Agarwal, Ferratt, & De, 2007; Niederman, Moore, Yager, 2002). Prior to the popping of the IT bubble, the abundance of IT workers permitted managers to focus on motivating extant staff. Because the industry has stabilized and labor is in shorter supply, managers have been required to heed turnover, a more longitudinal goal, in addition to maintaining production levels.

*Table 1. IS&T best practices taxonomies*

Human Resource Practices Agarwal & Ferratt (2002a)	Supervisory Practices Major et al. (2007)
Performance Measurement	<i>Task-focused Practices</i>
Compensation & Benefits Systems	Boundary Spanning
Work Arrangements	Performance Management
Employability Training	Employee Involvement
Longer-term Career Development	Training & Development
Opportunities for Advancement	
Opportunities for Recognition	<i>Person-focused Practices</i>
Quality of Leadership	Relationship Building
Sense of Community	Mentoring
Lifestyle Accommodations	Stress Management
Organizational Stability & Employment Security	Work-family Balance

Agarwal and Ferratt (2002a) and Major et al. (2007) have combined survey and interviewing methodologies to empirically derive taxonomies of best human resources management (HRM) and supervisory practices for IT (see Table 1). Although both taxonomies address the issue of effectively managing IS&T professionals, Agarwal and Ferratt approach the issue from a more global HRM systems perspective, while Major et al. focus on the practices of individual supervisors.

Reminiscent of classical leadership theory, two dimensions emerge in each taxonomy. One is focused on work and output itself, “task-focused leadership practices” (Major et al., 2007), or “productivity concerns” (Agarwal & Ferratt, 2002a). This aspect emphasizes performance management, employee involvement, and training and development. The other attends to the individual needs of the worker. At the macrolevel, this refers to attending to employee needs through human resources, an “interpersonal dimension” (Agarwal & Ferratt, 2002a). Similarly, “person-focused practices” refer to meeting individuals’ social needs and maintaining interpersonal relationships through supervisor-subordinate interaction (Major et al., 2007). These two dimensions reflect the state of the IT industry, which has recently required a dual management focus on both immediate (motivational) behavior and longitudinal (employee continuance) behavior.

Because Major et al. and Agarwal and Ferratt’s work provide two holistic and complimentary taxonomies and hold a strong empirical base, the current article derives its structure by identifying commonalities between the two perspectives. In addition, the findings of these articles are used to reference practical examples. Our aim is to create an integrative perspective of effective IT management practices.

## **PERSON-FOCUSED PRACTICES**

### **Relationship Building**

Upon hire, employees enter into a relationship with their organization. As with any relationship, it requires reciprocity. Employees make an investment in their organization (e.g., labor and effort) and hold expectations of the company in return. The perceived exchange relationship between employees and their organizations is referred to as a psychological contract (see Agarwal & Ferratt, 2000; Rousseau, 2001). Managers are responsible for communicating and upholding the employer’s end of the contract and may assist the organization to enjoy the benefits of the relationship (Agarwal & Ferratt, 2002b).

IT supervisors should maintain open communication with their subordinates for motivational purposes. Research suggests that face-to-face communication is preferred over other methods (e.g., e-mail) by IS&T professionals and their

supervisors as means of interpersonal relationship building (Major et al., *in press*). Face-to-face communication is especially important, at least on occasion, for employees working at a distance (Davis & Bryant, 2003). Through good communication aimed at establishing strong relationships, managers can mitigate job stressors such as customer service demands, tight deadlines, and understaffing (Major et al., 2007). Given the nature of IS&T work, direct supervision may not be possible. Managers must rely on trust, mutual respect, and loyalty instead. This is especially important to the effective functioning of team arrangements, distributed work in virtual teams, and telework (Costa, 2003; Davis & Bryant, 2003). Subordinate trust can be developed through open communication, honesty and follow-through (Korsgaard, Brodt, & Whitener, 2002).

IT research has especially advocated the implementation of mentor-based systems (e.g., supervisory mentoring). Mentors assist employees in identifying career choices, required competencies and training needs. Effective mentors also provide psychosocial support and serve as role models (Major et al., 2007; also see Scandura & Ragins, 1993). Research suggests that supervisor/subordinate mentoring relationships may be especially advantageous (see Payne & Huffman, 2005). In addition to providing mentoring themselves, effective IS&T supervisors also facilitate peer mentoring among IT professionals (Major et al., 2007).

### **Embeddedness**

Organizations and departments are infused with information technology. Thus, IT professionals are required to interface with a variety of other organizational departments and functions. These clients make technology requests, frequently without understanding what is required to fulfill their demands, or while underestimating the time and resources required. The situation may be exacerbated by client-held stereotypes of the IT professional and role (Guzman et al., 2004). In order to prevent interdepartmental conflict, effective supervisors work proactively to educate and build relationships with other departments and monitor the work environment to prevent sudden conflicts from arising. Ideally, the supervisor should assist subordinates and clients in maintaining sight of how the client’s needs and IT interactions fit within the context of the organization’s needs and goals holistically. Effective participative practices in an IS&T setting include involving employees in informal meetings with multiple layers of management to allow them to see how their work fits into a larger context (Agarwal & Ferratt, 2002a) and seeking employee feedback in both one-on-one and team settings (Major et al., 2007).

Supervisors should also be proactive in gaining a seat at the table for organizational planning. This entails marketing IT capabilities to customers to communicate how IT

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