Chapter VII

Information Technology, Training, and Organizational Learning

Introduction

The development of information technology creates many new opportunities for organizations to acquire and disseminate knowledge and skills among its employees. Due to the crucial importance of knowledge and skills related to IT, human resource issues have arisen that need to be dealt with. A recent in-depth study (Nelson & Todd, 2004) of several organizations identified the following issues as being important to the management of IT personnel (Adapted from Nelson & Todd, 2004, p. 4):

1. How can the organization recruit employees with the needed skills?
2. How can IT staff work together with the human resources department?
3. How can the organization develop the right mix of skills?
4. How can the organization support career development programs that meet the needs of the organization and the staff?
5. How can the organization keep up with new technologies?
6. How can employees be compensated fairly?
7. How can an effective work environment be developed and maintained?
8. How can personnel balance work and personal life?
9. How can key personnel be retained?
This is not an exhaustive list. For example, one major issue for governmental organizations concerns the relationship between IT and public sector unions when it comes to outsourcing.

Coursey and McCreary (2005) discuss some examples of organizations employing online efforts at recruitment. These online recruitment systems have some very positive aspects such as the ability of applicants to track the status of their applications and the ability of the organization to use the computer’s power to match up applicants for one position with other jobs that are available. Automated responses can inform applicants about the other positions. The functions may help save substantial personnel time. However, Coursey and McCreary (2005) also point out that paper applications must be maintained due to issues such as the digital divide.

The rapid speed of change in IT creates a need for continual learning for all levels or employees in government. Think about the changes that have occurred in the past decade. The Internet and related technologies such as e-mail have gone from being techniques exploited by relatively few public organizations to pervasive technologies that play a major role in everyday activities of public administrators. E-government is a fairly new development and as recently as two or three years ago, interactive Web applications existed in few organizations and they were regarded as innovative. Now most public organizations, even those with few IT resources, are likely support at least some interactive applications on their Web sites. Likewise, complex technologies such as geographic information systems (GIS) have emerged from a rarity to a commonplace at all levels of governments. There is a continual stream of promising new software applications aimed at governments. It seems that each day brings new IT-related concepts that public organizations need to consider implementing if they are to keep up with the best practices of leading organizations. The rapidity of these developments makes it virtually impossible for personnel to keep up with the pace of change (Lee, 2004, p. 114).

New information systems often have many costs that are hidden (Anderson & Dawes, 1991). Workers lose productivity as they need time to learn the new system. Currid (1995) describes a typical process for introducing a new system:

> When a new system is introduced, it rocks day-to-day activity so much that some people don’t adjust quickly. They stay less productive than they were without the new computer. And, if this situation goes unchecked, they may never recover. (p. 63)

In order to make up for this loss in productivity, users will require substantial training to improve their productivity through the new system. One report concluded that system benefits are obtained in local government only if technically qualified people are trained to operate the system (Schwartzrock & Jones, 1986). According to the Government Finance Officer Association (Miranda et al., 2002, p. 62), training for complex systems such as Enterprise Resource Planning systems is “often overlooked,” but is crucial and should be budgeted for up to 20% of the implementation costs of the system. These rapid changes in hardware and software create the need for continuous learning. The problem is exacerbated by the fact that the turnover rate for IT employees is twice...
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