Network Implementation Project in the State Sector in Scotland: The Influence of Social and Organizational Factors

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EXECUTIVE SUMMARY

This case study, about the introduction of networked PCs in a local government office in Perth, Scotland, focuses on the importance of organizational and social factors during the implementation process.

The implementation of the network in this case study is not a straightforward progression from one stage to the other, as may be inferred from the systems development life cycle "waterfall" model but a circular, stop-and-start process with moves back to previous stages and is more like a "spiral" approach of dynamic and unfolding processes.

The case study highlights the links between technical and nontechnical aspects of implementation and the complicated process of project management in which a balance is continually being sought between technical and nontechnical issues. But although social processes may reduce technical as well as social problems, not all problems can be solved by attention to social factors. Organizational constraints may limit the success of the implementation process, and there are also dangers in including users who, if their views are disregarded, may become disillusioned and adversely affect future development of the network.

NETWORK IMPLEMENTATION PROJECT

The traditional implementation process is usually depicted as a logical step-by-step process, such as the system development life cycle waterfall model (Gordon and Gordon, 1999). This approach may not be an accurate representation of the implementation of computer networks which may be less structured and require a circular, reiterative approach (Greil, 1982), regressing perhaps to previous stages (Dawson, 1994), and characterized more as a spiral (Gordon and Gordon, 1999). Analysis of a number of methodologies for the implementation of computer systems suggests also that an understanding of the internal organizational environment and high involvement of the intended system users are required during the implementation of computer networks. Problems and solutions, it has been argued, cannot be definitively stated or solved. They are situationally and socially constructed, ill-defined and emerge during the implementation process. New approaches are therefore required for the design and development of organizational information systems (Gasson 1998).

Project management may therefore require managers with flexibility and good technical and leadership skills. But project managers and their planning and control techniques have also been criticized because they often focus too much on IT costs and time targets, and assume that users will do whatever is necessary (Earl, 1992).

There is evidence that a large majority of systems fail because of social rather than technical problems (KPMG, 1990). This view is supported by studies (Roberts and Barrar, 1992; Hirschheim et al., 1991; Beath, 1991) which indicate that the success of systems implementation is influenced by social factors. More emphasis should therefore be placed on organizational context (Doherty and King, 1998) which may change during implementation, affecting power and control relationships. The dominant groups may be challenged by other stakeholders who wish to advance their interests at critical stages (McLoughlin, 1999). There should also be more emphasis on users, who should be actively involved in the implementation process by contributing more about their requirements, and by participating in project teams, pilot groups and vendor presentations (Damodaran 1996). Involvement of users may, however, not cover all human issues, nor solve all problems (Hornby et al., 1992).

The following case study was therefore carried out to investigate the planning, management and implementation of a computer network in a regional development agency in Perth, Scotland, and to assess the role of

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