Disturbing Realities Concerning Data Policies in Organizations

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The importance of corporate data management cannot be overstated in today’s volatile environment. Several recent studies of IS professionals have found computer-based data utilization to be one of the top five critical IS issues of the 1980s. A study was conducted with 394 end users in 21 Fortune 500 organizations. The results are alarming. Data pollution existed in every one of the firms we explored. Rekeying of corporate data was evident in half of the end users surveyed creating redundancy problems. Data management policies were not found to be widespread presenting a very real concern to practicing managers. Backup and security procedures were found to be loosely enforced on the average. Based on the findings, the authors recommend a contingency approach to managing corporate data. Recommendations are presented to IS managers which encourage a shift from computer management to data management.

The expansion of end-user computing has complicated the task of data management in organizations. Both end-user computing (EUC) and data management have been perceived as issues of paramount importance, rated in the top five according to widely cited surveys of the past six years (Brancheau, 1986). Yet, how well are end users actually protecting their data and managing their data resources? In a survey conducted by Benson (1983), concerns for data security and integrity, and corporate access for microcomputers were seen as two critical issues requiring organization-wide planning. Quil-

lard, et al (1983) also found companies expressing concern over data-related issues, yet few of them had adopted any formal policies with respect to data. The specific data issues they examined involved the types of data required for applications, data integrity and data availability.

Rivard (1982) in describing data administration sees it as a corporate function whose responsibility is to provide management with computer-based data, with data being the most recently recognized corporate resource. Henderson and Treacy (1986) further expanded the definition of data management as the need “to
make data accessible, reliable, consistent, and secure.” According to John Diebold (1979) of more than a decade ago, the organizations which will excel in the 1980s will be those that recognize information as a major resource and manage it as efficiently as they do other assets. We plan to revisit this concept of information resource management, as the basis for researching the topic and formulating relevant investigative questions. Kwan and Curley (1989) found new roles and responsibilities emerging as organizations grappled with the management of group-oriented, end-user applications.

The organization’s data resource continues to grow in size and complexity. The importance of data administration has continued to grow throughout the decade. In 1982, Benjamin predicted that by the end of the decade, end-user developed applications will absorb as much as 90 percent of the total computing budget. IBM researchers (1986) recently stated that three out of five business professionals are using the computer to develop applications to support their work. Nolan (1974) suggested that in Stage 3 (control), an important shift in emphasis should occur from managing the computer to managing the company’s data resources. He suggested that a company should develop applications to share data and new planning and control systems should be data-oriented. The current organizational computing environment seems ripe for the emphasis shift from computer management to data management and for an emphasis on data as a corporate resource. A key objective in the management of such a corporate resource should be insuring that data are available to the right person in a timely manner.

This paper reports the results of a survey to determine the current status of data management in organizations and to specifically examine formal procedures with regard to data access, data security, training for data extraction and data policies. Background information concerning previously identified data issues and data management problems will be presented. Surveyed results based on 373 questionnaires are analyzed. The paper concludes with a discussion of the current status of data management in the organizations represented with recommendations to IS managers and professionals.

**Background Research**

Quillard, et al. (1983) and Eve (1984) classified data used in the organization into three primary groups which include (1) user owned, (2) external, and (3) corporate. Rockart and Flannery (1983) in an examination of the primary sources of application data found the third group of data (corporate) is required by a substantial number of user applications. The findings showed 34% of users in the first study and 53% in the second one keyed in data from reports, rather than using existing data. Rekeyed data was stated to be the most significant source of application data available. These findings indicate the tremendous amount of duplicate effort that was occurring in 1983-84 in accessing corporate data. As recently as 1986, Pyburn (1986) found that 53 percent of the data needed by end users are user keyed. Further, Carr (1984) found that the first two groups of data, user-owned and external, although of low volume are normally also keyed in manually, suggesting the majority of data available for end user applications requires rekeying by users.

Rivard (1982) and Martin (1982) addressed the data problems that can occur in such a data management environment. The first problem involves data redundancy which, in turn, produces unreliable and inconsistent data. Rekeying data introduces the possibility of data entry errors, creates duplicate and perhaps outdated data, and wastes time and effort. The second problem, lack of flexibility, occurs when needed data items are located in different files, with different data structures. Rockart and Flannery (1983), found that “a major complaint of many end users interviewed was their inability
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