A Field Study of End User Computing Findings and Issues

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ABSTRACT

In order to assess the state and direction of end user computing in the St. Louis corporate environment, nineteen IS directors or managers and sixty-seven end users in twenty separate locations were interviewed from December 1982 to March 1983.

The end users interviewed represented all levels of corporate management and fifteen different departmental environments. However, fully forty percent of them were from the area of finance and accounting. The end users were fairly evenly divided between those using mainframe resources and those using microcomputers.

The findings of the study can be described in the following categories:

History and Growth Patterns -- Though end user computing for other than scientific and engineering applications was in its infancy, there were signs of growth. This growth was both speeded up and complicated by the introduction of microcomputers.

Applications -- Those using mainframe software primarily used applications relating to data capture, query, and retrieval, while those using micros primarily did analytical applications such as projections, models, and other 'what if' procedures. Micro users tended to develop almost twice the applications of mainframe users.

Microcomputer Cost Justification -- Micro users were able to demonstrate some dramatic productivity increases and cost savings.

Perceived Problems -- End users were loath to document, backup, and provide adequate security for the applications they developed. Few of them had become "programmers" but some of them feared that being identified as a computer user could damage their careers.

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Support and Training -- Most of the companies had or were developing significant support and training for mainframe oriented end users. But a lack of coherent policy concerning micros meant that little if any support or training was available for those using them. While most of those using mainframe resources had significant training, well over two-thirds of micro users were essentially self trained.

The end users suggested a wide variety of needed training. For themselves they sought advanced skills in application development as well as orientation to the use and selection of software and training in database and communications technology. They also sought training for other managers, especially top management, in the capabilities, limitations, and importance of computer technology.

Five critical issues in the development of end user computing were identified: 1) How can the security of corporate data and the integrity of computer reports be protected in an end user environment without stifling the benefits? 2) How and in what circumstances can and should corporate databases be made accessible to microcomputer users? 3) What kind of education do end users need and who will provide it? 4) What is the role of information services in a growing end user environment? 5) How will top management be enabled and encouraged to make those decisions needed to ensure that the new and powerful tools now available and coming quickly over the horizon will be used to revolutionize the productivity and not the stability of the corporation?