



Chapter 15

Understanding the End User: The Key to Managing End-User Computing

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The End-User Characteristics Matrix, a mapping of user characteristics onto four end-user taxonomies, provides a more detailed perspective on the end user as developer/operator of computer-based information systems. Understanding individual end users is probably the most critical element to effectively managing end-user computing. Yet many managers do not really understand the end user they are attempting to manage. The purpose of this paper is to develop a framework which will allow the manager of end users to identify and describe user characteristics which differentiate, define, and help us better understand the end user.

Previous literature on end users was discussed where four end-user taxonomies were presented, categorizing end users according to one or more characteristics, along with empirical research, which utilized those taxonomies. The Rockart and Flannery end-user taxonomy has been the most widely used framework since 1983. The most comprehensive taxonomy, Cotterman and Dumar's User Cube, was used as the basis for definitions in this research. The end user located in the developer/operator plane, identified as the fastest growing category of end users, was investigated in depth. Empirical research in end-user computing was examined to identify the set of user characteristics. Researchers studying end-user computing can use the matrix as a starting point to visualize how past research taxonomies and empirical studies are interrelated. Practitioners, anxious to develop policies to manage EUC, can concentrate their efforts on certain user characteristics they observe to be problematic.

After a decade of wild and rampant growth in end user computing (EUC), we are still searching for a set of principles which will allow us to more effectively manage it. A significant phenomenon of the 1980s, EUC continues to be an important issue for managers of tomorrow's organization. The increase in EUC literature provides evidence of this trend. Basically, managing end-user computing can only be more effective when we learn how to manage individual end-users. We will only be able to take great leaps ahead when we have

a better understanding of the end users we are managing.

Despite the growth of EUC, practitioners, academics, and vendors have different understandings of the term “end-user computing”. This term is often substituted for “user” or the person that “uses” the reports generated by a computer. In addition to different definitions and assumptions, there is a variety of end-user classification schemes from which to organize research designs. A research base which does not share common definitions from which to investigate end-user computing creates a number of difficulties. First, the results are not comparable because the same language is not spoken. We simply do not understand the end users we are studying. Second, some study findings, using different definitions, are contradictory and inconclusive. Surely we do not want to recommend to managers of end-user computing that they establish corporate policies from inconclusive research results? Third, some researchers fail to utilize existing theoretical definitions in their variable operationalizations. As each of the frameworks offer differing perspectives on the end user, researchers in the end-user computing area have either been forced to choose one framework or create a new one in which to work.

Rockart and Flannery, early investigators of end-user computing, felt that top managers must understand their end users before they can even start to develop a strategy for effectively managing their EUC environment (Rockart and Flannery, 1983). Since 1982, several researchers have attempted to develop a categorization of end users in order to investigate a firm’s EUC environment (Davis, 1985; Lefkovitz, 1979; Martin, 1979; Rivard and Huff, 1985; Rockart and Flannery, 1983). A framework is necessary to provide researchers and practicing managers with a common way of comparing the results of investigative research. Further, it creates a relevant context for readers of the research to evaluate and interpret the results. Finally, a framework promotes commonly used definitions. Unfortunately, the characteristics classifying end users vary significantly in literature. Frankly, another new typology is not needed; rather we simply need a better understanding of the end user using existing ones. In this research then, we will use the Cotterman and Dumar three-dimensional taxonomy of end users as a vehicle for our discussion in order to provide consistency of terminology (Cotterman and Kumar, 1989).

The purpose of this chapter is to identify and describe user characteristics, which differentiate, define, and help us better understand the end user. We will review the relevant literature on end-user computing in order to lay the groundwork for discussing those characteristics. Derived from the literature, four end-user taxonomies and then user characteristics will be used to develop an End-User Characteristics Matrix. The diversity of the end-user community lends even more evidence for differentiated training, supplements and software tools.

REVIEW OF THE LITERATURE

The MIS literature has portrayed the user in many different ways. Churchman and Schainblatt (1965) were the first to present a user/manager and analyst dichotomy. This dichotomy prompted the recommendation of the concept of “mutual understanding” between the user and the analyst. Users were categorized early in the MIS literature by the way they interacted with the computer in order to obtain outputs. In this section, several end-user taxonomies are presented along with empirical studies which utilized those taxonomies.

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