

Chapter 4

Developers, Decision Makers, Strategists or Just End- Users? Redefining End-User Computing for the 21st Century: A Case Study

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ABSTRACT

The acceleration of technology in business since the 1980s suggests that traditional management techniques, systems, and strategies employed in a business environment should be challenged. As a consequence of this acceleration, end-user computing (EUC) and end-user development (EUD) have also grown. Definitions of EUC developed in the 1980s continue to be used by contemporary researchers without regard to the changing technological environment, user experience, and user needs. Therefore, the authors challenge traditional definitions of EUC developed and used by researchers to ascertain whether they meet the needs of management for the 21st century. There is a conflict among traditional definitions that has not been addressed since the early 1990s (Downey & Bartczak, 2005). In this regard, the authors proffer that the management strategies for end-user (EU) systems development in the 21st century should suggest a different and proactive role for users. This paper summarises key traditional definitions from the literature and evaluates their consonance with the technology and business system environment. The impetus for researchers to rethink the traditional definition of EUC is provided through a real world management project involving the development of a university staff workload database that investigated the role of end-users in system enhancement and development.

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INTRODUCTION

End-users are defined as those who use computers for business requirements be they administrators, management, operators, information systems specialists, or a combination of all categories. "End-users are a diverse set. There is no single, stereotyped "end-user" with a single, defined set of characteristics" (Rockart & Flannery, 1983, p. 778) and over time it has been identified that academics and business have very different understandings of what exactly EUC is and who the end-users are (Amoroso, 1988). Research into EUC has been undertaken extensively over the past 25 years. This research has included investigation of various user satisfaction models (Doll & Torkzadeh, 1991; Etezadi-Amoli & Farhoomand, 1991) which have also impacted on the understanding of who end users are. The utilisation of these models has spanned more than two decades and therefore it is the opinion of the authors that these models were instrumental in developing an understanding of EUC when developed in the early 1990s. It has been recently identified however that there appears to have been little advancement in the understanding and definition of EUC over this period of time (Downey & Bartczak, 2005). During this time many researchers have identified key elements which defined EUC at a particular time in history. In the 10 years to 2000 almost 90% of the research in this area was empirical (Downey & Bartczak, 2005). The authors question whether the traditional definitions of EUC refer to all of the elements relevant to users in the 21st century as many of the academic papers covering this topic rely heavily on definitions constructed in the 1980s and 1990s. These dated definitions have not kept pace with the changes in technology and education which today see users that have a much higher level of computer literacy utilizing more advanced software (e.g. fourth generation language (4GL) software) to automate and complete their daily tasks. This creates the opportunity for research to be focussed in a man-

ner which links IS/IT and management to create a more contemporary definition of EUC. Using a practical case study approach the authors identify and explore the relationship between elements of the traditional definitions of EUC and the actual activities being undertaken by today's users. The paper will investigate three hypotheses in order to explore these elements.

TRADITIONAL EUC DEFINITIONS

The evolution of EUC definitions has been relatively slow compared to the evolution in technology. There have been many definitions of EUC in the literature, most of which tend to involve the interaction of managers, professionals, and operational level users of application software within their own departments (Torkzadeh & Doll, 1993).

Alavi (1985, p. 171) stated that EUC could be defined as "...the user of the results of the computing also creates the software specifications necessary to effect the computing itself". This early definition of EUC is indirectly affected by the technology of the time. At this time, businesses had not committed to major investment in personal computers (PC) and very few users were directly involved in 'hands-on' computing. However, users were responsible for computing output and therefore prerequisite input into the specifications of the applications and the reports generated. On evaluating this early definition it can be seen that the impact of technology and technical competence of the user has been significant and as such these elements needs to be considered in any contemporary definition.

Davis and Olson (1985, p. 421) defined EUC as "... the capability of users to directly control their own applications and computing needs." This definition is passive in the sense that it provides for the capability of managing rather than actively enhancing information systems for improved personal and corporate objectives.

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