

## Chapter VII

# The Organization of End User Development in an Accounting Company

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### ABSTRACT

*The chapter presents a case study following the activities of super users and local developers during the adoption of a new business application by an accounting firm in Scandinavia (referred to as the Company). The Company launched a program to train super users to help with this process because of the complexity of the new system, a generic, multipurpose application system replacing several older, non-integrated systems. The system, Visma Business (VB), is a comprehensive financial and accounting application delivered as a set of components that need to be configured for domain-specific tasks, depending on the clients the accountants will interact with. The super users and the local end user developer (also called the application coordinator) were asked to take part in this study. We documented their activities empirically and analytically, using interviews to gather data and drawing on aspects of activity theory for the conceptual framework for analysis. Our findings provide insight into end-user development (EUD) activities with VB: what roles were created by the Company, what roles emerged spontaneously during the process, what the various user groups (regular users, super users, and the application coordinator) did, and how EUD was coordinated between super users and the application coordinator. Our findings show that super users fill an important niche as mediators between regular users and local developers and can make a significant contribution to the success of EUD efforts in a nontechnical application domain.*

## INTRODUCTION

The concept of coworker competence has become a matter of interest in many companies in Scandinavia as well as elsewhere in the world. Work has become significantly more complex as workers confront the integration of traditional work with computer use. Employees in the modern workplace need to master new tools while continuing to employ older skills. In addition, the available task-relevant information has mushroomed. In knowledge intensive domains, such as accounting, this involves immediate access to large amounts of information (e.g., all the rules for income tax returns for various enterprises).

The development of coworker competence must keep pace with the introduction of new technology (Edwards, 1997; Ellström, Gustavsson, & Larsson, 1996). It raises the importance of how organizations employ information and communication technology (ICT) to adapt the workplace to the learning needs of diverse employees, or increase the flexibility of technical support (for example, using in-house expertise vs. buying software for adaptation; IT consultants vs. outsourcing). For the company in our study, we focused our observations and interviews on the technical and organizational infrastructures (Guribye, 2005) surrounding a new business application. This perspective enabled us to analyze activities associated with end user development (EUD) and learning at work, two important aspects in the adoption and use of generic (multipurpose) applications. We have chosen a framework for analysis based on activity theory (Engeström, 1987; Kaptelinin, 1996; Kuutti, 1996; Nardi, 1996). This framework provides analytic categories that allowed us to focus both on the integration of design and use and the integration of work and learning. We find that these four related activities need to be addressed when introducing complex application systems into an organization with a large and diverse user group. We focus in par-

ticular on the interreaction of the design and use activity systems. Furthermore, the support needs of the users (accountants) varied depending on the clients with whom they interact (from small and medium-sized businesses (SMBs) to large enterprises).

Previously the problem of introducing new technology into an organization has been addressed by bringing users and professional developers closer together (Grudin, 1991), for example, conducting user testing in developer laboratories; developing in-house software systems using participatory design techniques (Namioka & Schuler, 1993); and instituting companywide teaching programs. The case we analyzed had a different goal, namely to bridge the gap between developers and users by creating new user-developer roles. Furthermore, these roles were acknowledged and supported by management in the organization and they persisted after the technology had been put into use and the researchers had left the site.

We present a case study of “super users” who we define as *“regular employees with in-depth knowledge of one or more of the organization’s computer applications without being programmers.”* Superusers have both domain expertise and computer know-how, and they are trained to teach other users. They are not trained as programmers; instead they interact with regular users and with local developers in their daily work. We analyzed how an organization successfully initiates a program to train super users in conjunction with introducing a new software application, Visma Business (VB). Based on empirical material, we discuss our experiences and summarize our findings. Our research was formulated to address the following questions:

- How do super users engage in EUD activities in order to achieve an efficient use of a complex computer application?
- How are EUD activities organized (roles, division of labor, etc.)?

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