Editorial Preface

Special 10th Anniversary Issue

End User Computing: Clarity, Change, Choice

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It is not uncommon to hear information systems researchers remark in defining end user computing that “If you think about it, everything is end user computing.” End users are those people who have trouble fixing tables in word processors. They also program their own applications, manage networks and develop Web sites. End users can be doctors, payroll clerks, financial analysts and scientists. We are entering an age when every business transaction begins and ends with a computer operated, of course, by an end user.

How can we possibly study something so large and so varied. The effort to define, categorize and develop measurements for the end user computing phenomena is indeed noble.

An end user of today could easily look like an IS professional of yesterday. The IT responsibility has moved far beyond providing passwords and payroll, to that of managing a corporate infrastructure of interactive microcomputers. IT departments are shifting to a role of technology enablers, while end users are becoming developers. End users have become savvy in things for which the IS department was once solely responsible. In ten years, industry has transformed from dumb terminals for specific end users to networked, microcomputers on every employee’s desktop and the extensive use of computers in the home.

To take full advantage of the opportunities technology offers, we need to perform our research in a way that gives us repeatable measurements and that gives predictive insight into management strategies for optimizing the use of technology. This is a monumental task in a field where technology changes so rapidly and user characteristics are so widely varied.

We are indebted to scholars who have developed taxonomies and classifications (Rockhart and Flannery, 1983; Alvai, et al., 1987) for end user computing and models that help us describe its success (DeLone and McLean, 1992; Seddon, 1997). These models break down the massive description of end user computing into comprehensive, solvable problems. Many of the taxonomies developed ten years ago are easily applied to today’s world. Indeed, the research that adds insight into end user development, management and training is giving great power and insight to people who wish to fully exploit technology in organizations.

The articles that comprise the 10th anniversary issue give an indication of trends and problems facing end user computing future research.

Shayo, Guthrie and Igbaria look at the measurement of success factors for end user computing. How an end user is classified and circumstances of the introduction of computing have an impact on where measures are taken. Individual, self-reported measures dominate research, hence there is a need for departmental and organizational measures that are more objective.

John Gammack’s Constructive Design Environments: Implementing End-User Systems Development, makes an argument for a human-centered approach to end user computing. It is futuristic in that it predicts the organizational computing environment of the future will be one where IT professionals have the work of creating infrastructure and design foundations for end users to work with. End users will be free to design and implement systems dynamically and opportunistically in a rapidly changing business environment. The paper is forward looking in that it creates a vision of global end user computing and organizations.

Similarly, Ryan Nelson and Peter Todd (Strategies for Managing EUC on the Web) portray an increase in the importance and impact of end users as developers. Twelve firms from various industries are examined with respect to their Web EUC management strategy. A comparison of policies and standards, resource allocation, and development and management support is made. Nelson and Todd discuss advantages and risks associated with various EUC manage-
ment strategies. Unique risks arise because users now can have greater impact on business processes, partners and customers without formal mechanisms for control.

The increase in computing responsibility for end users is a clear indication of an increasing demand for users with more sophisticated computer skills and a need for better training approaches. Sein, Bostrom and Olfman give evidence of this need in Re-Conceptualizing IT Training for the Workforce of the Future. The need for going beyond syntactical training is evident. Now research needs to discover what training methods produce appropriate levels of knowledge. Examples of SAP-recommended training tactics are given.

Laku Chidambaram (Knowledge Transfer in Conceptual Modeling by End Users) comes to a similar conclusion as Olfman, Sein and Bostrom, that the training needs to be appropriate for your audience and for the goals the organization is trying to achieve. End users were given structured modeling or influence diagramming to investigate transfer of knowledge through analogical reasoning. In structure modeling, a positive transfer was shown; in influence diagrams, it was not. Results imply that a structured modeling tool would assist a company in accumulating the expertise of experienced builders, while the influence diagramming technique is better for an audience with a wide range of skill levels.

Clearly, end user computing is an enormous area of research with much promise in the next ten years. As end users become more savvy at developing their own information systems applications, researchers will find novel ways to create organizational gains out of individual, end user triumphs.

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References


