5 INTRODUCTION

We expect that the increasing power and ubiquity of the Net coupled with its imagi- native use by researchers will result in continuing expansions and variations of the scope of research practiced around the globe.

THE SPECIAL TASK OF e-RESEARCH

The networked world is awash in volumes of data. E-research helps us to convert this data into information and present and disseminate this information in ways that allow it to be transformed into knowledge and wisdom by the researchers, their sponsors, educators, and the general public. The quantity of information produced, coupled with the speed in which it can be accessed, filtered, sorted, and combined creates end- less opportunity. However, this abundance forces ¢-researchers to be more selective and critical of the veracity of the data they gather. In addition, it is becoming increas- ingly apparent that we can no longer, if we ever could, gather all relevant data. Instead we must make judicious decisions about which type and what quantity of data is most helpful in answering our research questions.

E–research is more than a set of new research techniques. The quantum physicist studying subatomic particles realizes that the very act of viewing these tiniest of parti- cles disturbs and changes the objects, The e-researcher is a component of the Net. E- researchers provide and create tools for analysis and conceptual understanding of human behavior as it develops on the networks. In some cases the e-researcher is the outside evaluator, in other contexts the practitioner e-researcher is both a participant and researcher of the environment in which the research occurs, E-researchers are also usually members of other Net communities, thas they bring their experience and insights into the way online individuals and groups communicate and operate. They act as Net-savvy artisans of a network culture. Informally, they interact with peers, family, and coworkers—investing their time in the development of new skills and in the process gaining "Net efficacy."

E-research takes its place alongside e-commerce and ¢-learning as alterna- tive ways to act, understand, and create knowledge in a networked society. New tools require new skills, but also allow creativity and an ability to manipu- late the world in different ways. These new tools span both the physical and temporal barriers. We are accustomed to conceiving of technology spanning ge- ography—after all, humans have had nearly 150 years since the telegraph first allowed us to communicate in real time over geographic distance. The Net easily meets this challenge. But equally, the Net spans temporal distance. Users are now able to benefit from asynchronous interaction through the tools of email and voicemail, or the capture and time shifting of audio or visual presentation. New tools such as asynchronous voice conferencing and "video capture" (an ad- vanced form of picture mail) promise to allow full multimedia interac- tion in asynchronous formats.

Asynchronous communication has also been with us for a long time. From St. Paul's letters to the early Christian church to the friendships that have grown and flourished via pen pal letters—asynchronicity has provided a uniquely reflec- tive means by which humans communicate and by which we are communicating with you at this