Introduction

ALBERT F. ANDERSON

University of Michigan

This issue of the *Social Science Computer Review* includes four articles from the sixth Conference on Computing for the Social Sciences (CSS'95). The conference was held June 17-20 on the campus of the University of California, San Diego (UCSD). CSS'95 was hosted by the San Diego Supercomputer Center (SDSC), UCSD, and the University of California, Irvine (UCI). Sponsors included the Social Science Computing Association (SSCA), Cray Research, Inc., O'Reilly & Associates, the SAS Institute, and SPSS. The conference theme—Changing Technology, Changing Society—was reflected in workshops, presentations, and papers.

These conferences continue to provide a valuable forum for participants from academia, government, and industry to share their work on bringing computing and information technologies to bear on a broad range of social concerns and to share their insights into how those technologies are shaping the future at personal, communal, and societal levels. International perspectives were offered this year by participants from Australia, Brazil, Canada, England, Israel, and Italy.

The articles that follow address what can be viewed as four distinctly different social science computing issues: the interaction between human personality and computing technology; the potential for widespread, easy access to electronic communication to transform democratic political processes; the challenge to make technology available to and relevant to education; and the possibility for technology to provide much easier and more meaningful access to census and survey data. Yet a common thread runs through these articles as the authors grapple with the more basic issue of how individuals or society can make more effective use of the computing and information technologies now available.

In the first article, "Human-Computer Enmeshment: Identity Diffusion Through Mastery," Myron Orleans and Gregory Walters interpret within a social-psychological framework the compulsive need to upgrade to the latest hardware and software that many readers will recognize in associates, if not in themselves. Their analysis of the person-to-computer relationships among their subjects reveals similarities to recognized patterns in person-to-person relationships. It also demonstrates that much can still be learned from the insightful analysis of a relatively small number of cases. This initial study provides a solid foundation for further work on this topic, which will inevitably follow as ubiquitous computers become even more enticing.

Richard Groper, in "Electronic Mail and the Reinvigoration of American Democracy," looks both at the promise of electronic communication to involve a much higher proportion of Americans in the political process and at the obstacles to the realization of that promise. He reviews the historical and philosophical underpinnings of democracy and then describes

two electronic mail projects designed to improve communication between government officials and their constituents: the Legislative Information Network (LIN) in Alaska and the Public Electronic Network (PEN) in Santa Monica, California. He notes that if the public is to fully participate in the political process, the public will need widespread access to the technology and to the knowledge and skills required to make effective use of the technology. Richard Groper was a corecipient of the Social Science Computing Association Founders Award of Merit for best student paper at CSS'95.

Byron Davis and Edward Kick, in "Human Capital Issues in the Use of Information Technology in Education," focus on the challenge of providing better education for more people while faced nationally and locally with a broad range of economic and political pressures, which limit the resources available for education. Computing and information technologies are identified as tools that can support more cost-effective strategies for using human resources in education. The authors frame the problem within a global context. They then describe the challenge as it faces the state of Utah, the response of the state through the Higher Education Technology Initiative (HETI), and the local response at the University of Utah. One possible outcome foreseen by the authors is a major restructuring of higher education with increased value placed on those who can support the technological infrastructure and those who can make effective use of that infrastructure, perhaps at the cost of lower societal value being placed on more traditional academic and research activities.

Jianzhang He and Fredric Gey, in "Online Codebook Browsing and Conversational Survey Analysis," describe an innovative system for interacting with data and documentation. The system, developed at the University of California Data Archive and Technical Assistance (UC DATA) unit, Berkeley, is based on a machine-readable codebook format, Document Type Definition (DTD), using the Standard Generalized Markup Language (SGML). Simple links to an analysis engine allow univariate statistics and cross-tabulations to be generated. This is one of several systems currently under development that promise to revolutionize the manner in which large and complex data sets are used. Ulysses and PDQ-Explore are similar systems that were demonstrated at CSS'95 by Hendrik Meij of the Consortium for International Earth Science Information Network (CIESIN at Saginaw, Michigan), and by Albert Anderson, respectively. The UC DATA browsing tool more fully integrates the codebook and technical documentation within the system than either Ulysses or PDQ-Explore do at present. The development of these systems has the potential to provide researchers, teachers, policy makers, and the public at large with easier and more meaningful access to a much broader range of data than is presently available.

Technology continues to change rapidly and dramatically. Each day's mail—electronic and postal, the displays at technology conferences, and the shelves of hardware and software retailers present the evidence. As the articles included here suggest, keeping up with the technology involves costs at every level from personal to societal. Innovative application of technology to the social issues of concern requires that substantive and technical expertise be brought together. In the past, this combination often occurred in a single individual, usually at significant direct and indirect costs to the individual in the form of dollars, time, and foregone opportunities to move through the traditional channels of career advancement. The complexity of the current technology substantially increases the difficulty of mastering both the substantive and technical dimensions of the discipline.

This society is being challenged to find ways to bring together the people that collectively have the breadth of knowledge, experience, and skills needed to make revolutionary contributions toward the resolution of the social problems that face the world. Bringing these people together is perhaps the most important role for the SSCA in this emerging information age.

The Social Science Computing Association wants to insure that the persons who are applying computing and information technologies to these issues are appropriately recognized. The Founders Awards of Merit are one way of doing this. In addition to the Award of Merit to Richard Groper, awards were made to Martin Ruef for best student presentation (shared with Mr. Groper), Todd La Porte for best presentation, Bruce Tonn for outstanding service to the SSCA and the CSS conferences since their inception in 1990, and Nancy Jensen for outstanding service to CSS'95.

I should also recognize the institutional contributions being made. Roberta Miller, president of CIESIN, and Richard Rockwell, executive director of the Inter-University Consortium for Political and Social Research (ICPSR), have personally participated in recent CSS conferences, including CSS'95, and they have encouraged participation by their colleagues. They represent organizations that are making essential contributions to an understanding of how technology can serve the social sciences. Dr. Sid Karin and the San Diego Supercomputer Center—which he directs—were gracious hosts to CSS'95 and, like Dr. Larry Smarr and the National Center for Supercomputing Applications at CSS'93, presented vivid demonstrations of the capabilities of high performance computing and information technology. In 1993, Mosaic and the Internet were introduced. This year virtual reality, Java, and a variety of other innovative graphical and multimedia applications were presented. The liaisons between social scientists—and the national supercomputing centers that are being fostered through their efforts—are greatly appreciated. The continued participation of commercial developers and vendors is important and valued in terms of both their direct support of conferences, and their products that transform technology into tools for social scientists.

I also want to acknowledge the contributions of Douglas White and the local arrangements committee in San Diego. The success of each of the conferences has depended in large part upon the dedicated efforts of individuals from the host institutions who have responded unselfishly to our needs. Ann Redelfs from SDSC coordinated the planning for CSS'95, and Nancy Jensen, also from SDSC, handled the on-site arrangements. They and their associates made our sojourn in San Diego a pleasant and memorable one.

The 1996 Conference on Computing for the Social Sciences meets May 13-15 in Minneapolis, with the University of Minnesota as host. The last day of the conference will be shared with the International Association for Social Science Information Service and Technology (IASSIST). I invite you to join us.

For information about SSCA and the 1996 conferences, contact

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http://ag.arizona.edu/ssca/
http://ag.arizona.edu/ssca/96anmeet.html
http://www.ssc.upenn.edu/iassist96/
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Albert F. Anderson is an assistant research scientist at the Population Studies Center, University of Michigan, where he is head of the Data Processing Core. He is also chief executive officer of Public Data Queries, Inc., a family-owned small business that provides data services via the Internet. He was program chair for CSS'92 and CSS'95 and is currently president of the Social Science Computing Association.