
Communication and Information Technologies

A History of the Middle Years

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The American Sociological Association section on Sociology and Computing, as it was named from 1995 to 2002, faced repeated challenges during the decade of the 1990s. This article traces changes in the sociological audiences concerned with computing during that decade and discusses how they influenced the way the section coped with the routinization of computer use in sociology, the rise of Microsoft Windows, the increasing use of computers in teaching, and the rise of the Internet.

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In 1992, section chair Michael Kearl, Trinity University, raised a fundamental question: Has this section fulfilled its purpose? He observed that computer use had spread quickly and most sociologists now made active use of computers. The advantages of computers were widely recognized, and the ability to use a computer was quickly becoming one of the taken-for-granted requirements for professional participation in sociology. Because the section was no longer an island of computer users in the sea of sociology, he proposed that it had fulfilled its purpose. He suggested that the section disband.

Kearl's proposal generated understandable controversy. The opposition was strong and based on several arguments. Proselytizing computer use was not the only purpose of the section. Many members were interested in studying computer usage and the impact of computers on society, others used computer techniques—such as simulations—as tools, and still others used computers as a teaching tool. An analogy was drawn to the methodology section: Even though regression use has become widespread, it does not therefore follow that there is no further need for a methodology section. After considerable discussion, the proposal was tabled until the 1993 business meeting.

In 1993 even Mike Kearl rejoined the section and his proposal, though discussed, never came to a vote at the business meeting. At that business meeting, several members, led by Kathleen Carley and Ed Brent, proposed renaming the section to Computational Sociology. Their work focused on formal models using intelligent agents and artificial intelligence. Their primary argument was that this name parallels usage in other social science disciplines.

Author's Note: I gratefully acknowledge helpful comments from Ronald E. Anderson and an anonymous *Social Science Computer Review* referee. All remaining errors are mine.

Members who were primarily interested in teaching, electronic networks, data analysis, or nonmodeling applications were less enthusiastic. In early 1995, when Carley was section chair, several proposed names were voted on by members. The result was that Computational Sociology; Virtual Sociology; and Sociology, Computers, and Networking lost to Sociology and Computers.

The new name and Kearl's proposal were related. Kearl had put his finger on a key question that would trouble the section throughout the 1990s. The section had been born in the excitement of microcomputing during the 1980s. As small computers spread rapidly, they lost much of their novelty and excitement. Once that novelty wore off, what was left? What was the purpose of the section?

From some points of view, section names are not very important. What really matters is how well the section serves the substantive concerns of members. Yet names are a public face for a section and part of the identity of its members. Debates over the section name occurred repeatedly. The changes to the section name between 1993 and 1995 and again in 2002 reflected concerns about the identity and place of the section in the larger project of sociology. The fact that the name has changed twice reflects rapid changes in the way sociologists understand computers and view the impact of computers. When the original name microcomputing was being discussed in the late 1980s, I pointed out that sociological computer use was much broader than just small computers. In the interest of being more inclusive I proposed a simpler, more general name: computing. I never made a formal motion because there was insufficient support, and the bylaws explicitly recognized all sizes of computers and electronic networks. I raised the issue in a private conversation with Ronald E. Anderson. Ron's argument was that most of the really new, innovative applications were being developed for small computers. Further, microcomputers offered immediate, personal control over the computing environment that made them particularly suitable for sociologists who wanted to develop new applications for teaching or research.¹ Supporting this kind of work, he said, was exactly what the section was all about.

In fact, the section serves a diverse collection of audiences. The size of various audiences has changed during the past 20 years. This has been the prime mover behind various changes in the section. For example, audience changes are, in my opinion, the major reason for changes in section membership. The section began in 1988 with more than 350 members and dropped to less than half that number by the early 2000s before rebounding to its current level of about 300 members. During the 1990s, audience changes interacted with changes in two other areas: Computing and networks changed dramatically, and the relationship of computing to sociology as a whole changed as well. This complex mix created difficulties for the section as it attempted to organize as a professional subgroup. Tracing the rise and fall of various audiences is the most effective way to see the history of the section.

The remainder of the article describes the intellectual diversity in the section during the 1990s. The full scope of diverse audiences is best seen in a summary table (see Table 1). This indicates some of the complex interests that the section balanced. The comments column briefly indicates the importance of each dimension in shaping the decisions of the section. Readers should recognize that Table 1 presents each dimension as a discrete entity for analytic purposes only. Individual section members often occupy more than one location on the same dimension; for example, a sociologist may value computing in both teaching and research or may use computers for analysis of both quantitative and qualitative data. Furthermore, almost any section member will occupy positions on most dimensions.

Table 1
Dimensions of Intellectual Diversity

Dimension	Comments
Teaching vs. research	Most important in the early years of the section.
Microcomputers vs. others	Important in the early years; again important in the late 1990s as electronic communications became widespread.
Qualitative vs. quantitative	Qualitative researchers found computers removed much of the drudgery of coding and sorting, but software development has been slow. Quantitative software packages were early developments, and being able to move research off a mainframe was an early reason why many learned to use microcomputers.
Developers vs. users	Most important in early years when more sociologists were software developers.
Internet vs. non-networked systems	The importance of this dimension parallels the increasing importance of the Internet.
Modeling and simulation vs. data management and analysis	Data management and analysis has always been popular, but modeling and simulation are some of the most innovative applications. Sessions on simulation or modeling have been organized because of their innovative potential.
Theory vs. method	Computers help to develop social theory using simulations and artificial intelligence. Sociologists using computers to support research methods have always been a very large group.
Learner vs. trainer	Most important in early years; again important with the rise of the Internet.
Novice vs. expert	Most important in early years; again important with the rise of the Internet.

Two of the audiences in Table 1 deserve only brief mention because they are beyond the scope of this article. One group that joined the section in its early years was novice users who hoped to learn more about computers. When it became apparent that the primary agenda of the section was teaching and research, these people quickly dropped away. In my opinion, this was the primary reason for the initial membership decline in the late 1980s and early 1990s. Another audience was sociologists interested in sociology of technology. Some have been members of the section, but they have never had a major influence. Outside of Internet studies, most technology work takes place in the Science, Knowledge and Technology section.

A number of sociologists developed courseware and research applications, for example Maisel and Persell's (1995) well-done illustration of sampling or Kriss Drass and Charles Ragin's (1986) work with qualitative comparative analysis. In published form (like Maisel & Percell), these were counted just like other publications for promotion and tenure. As computers became rapidly faster with more disk space and more memory, some applications became more practical, for example, statistical software. Indeed, the enhanced graphical capabilities of small computers meant that by the 1990s, the best statistical software on small computers had better graphical diagnostics than did packages running on mainframes.² However, several trends worked against continued software development by sociologists. First and foremost, the rise of Windows in the mid-1990s was only the most obvious sign of a rapid increase in user interface standards. In many projects, user interface work began to consume

more than half the resources of the project. Professional sociologists tended to be interested in substantive things that software could do and not in how it looked. In 1995 I asked one sociologist—a successful author of a DOS program—if he was going to convert it to Microsoft Windows 95. He said no, and he added that he did not think this was a good way to spend his time because the converted program “wouldn’t do anything different.” Students had a different point of view; they liked their software to look like the commercial products they were used to. What many students saw as an amateurish user interface tended to obscure or override, at least in their minds, the concepts that the software was trying to teach. Other faculty often would not adopt courseware that they thought students would not like. Faculty software writers could not find the time to design modern-looking interfaces and then implement them.³ Consequently, many sociologists stopped writing software. By the mid-1990s, the pool of sociologists writing software had become small, and they no longer added many potential members to the section.

An important exception to the statement that sociologists stopped writing software is the researchers writing cutting-edge simulation software. They continued to write. The problem was that in the mid-1990s there were fewer than 10 such sociologists in the entire country, too few to have much impact on the section and its membership. The section, however, had an impact on them: At the 1995 ASA meeting, Kathleen Carley told me that a section roundtable was the first time that 6 sociologists writing simulations had been able to exchange ideas and techniques. This is exactly how roundtables, at their best, can facilitate a research stream.

From its beginnings as a section, there had been a split between members teaching with microcomputers and those using computers for research. Of course, most section members used computers for both teaching and research; so the split is actually a matter of relative importance or emphasis. Nonetheless, the issue generated some heated discussion in section business meetings when some sociologists felt that their primary interest was not sufficiently recognized by the section. In practice, the issue was often resolved by committing one paper session at the annual meeting to teaching and the other to research. This procedure continued as late as 2002, when Janet Salaff organized a session titled “Computer Networks as Social Networks” and Earl Babbie organized “Teaching Sociology With Computers: Applications and Analyses.” In a related compromise beginning in 1995, two of the section awards recognized outstanding contributions to teaching and to research, respectively.

During the mid-1990s, a third focus emerged: the Internet. First recognized in 1996 in a session organized by Earl Babbie titled “The Culture of the Internet,” it complicated Annual Meeting scheduling. A section our size was allocated two paper sessions, and one of our three major groups would always be unrepresented in the sessions. Although the roundtables were always open, participation in the roundtables was often seen as less prestigious. Further, within the ASA annual meeting program planning committees, having a session on the Internet tended to confirm that the section was the appropriate home for Internet research in sociology. Given the dramatically increasing importance of the Internet, maintaining this jurisdiction was extremely valuable. These considerations pushed the section toward devoting one session per year to the Internet in the late 1990s. Sessions on the Internet were organized for the annual meetings in 1997 by Ed Brent and in 1999 by Chris Toulouse.

The section was not wholly successful in establishing itself as the home base of Internet research. The ASA annual meeting planning committees found us too small and the Internet too important to be solely housed in a single session sponsored by one section. Beginning in 1996, the annual meeting program included regular sessions on the Internet outside of those

organized by the section. The 1996 ASA program had two sessions titled "The Internet and Social Change," organized by Carl H. A. Dassbach of Michigan Technological University. Sessions on the annual meeting program, however, may be less important than actual research. Here the section has been much more successful. In recent years section members have run almost all sociological Internet-related research. Internet research also finds a home in the Association of Internet Researchers, which was founded in 1999 to cater to researchers from many disciplines.

At the end of the decade, some of the three-way tension surrounding program planning had begun to dissipate. The source of the change was a change in the way that teaching technology was viewed and supported. When the section was formed, use of computers in classrooms was relatively rare and not well understood. The relatively few sociologists who used it were often regarded as the departmental geeks. The section award for outstanding use of computers in teaching was the first recognition in sociology that using computers in the classroom could enhance pedagogy. By the turn of the millennium, change had come rapidly. Many departments and universities had recognized the value of computer technologies in teaching and had developed active programs to buy hardware and software and to train faculty in its use. Ability to use technology, such as PowerPoint or course web sites, was recognized in many places as a plus for promotion and tenure. One consequence for the section was that there was less value for teachers to come to the annual meeting to find other sociologists to talk to about teaching with computers. They could have these conversations in their own departments. As use of technology in classes became routinized, fewer sociologists wrote papers about teaching technology. Thus, the pressure from members to incorporate teaching into the paper sessions had declined.

As the use of computers in teaching became routine throughout sociology, members employed by teaching institutions found the value of membership had declined. One sociologist commented to me at the 2000 ASA meeting that "computers in a classroom are now so conventional that even my dean talks about them." We all know that when a dean notices something new, it is time to start looking for the Next Big Thing. This was one reason behind the membership decline that began in the early 2000s.

The end of the 1990s brought the dot-com boom that was only the most obvious manifestation of the rapid rise in the use of e-mail, cell phones, the Internet, and electronic communications of all sorts. For the section this opened rich new areas for study. It also brought new audiences that developed sufficient size and influence to raise the issue of the section name yet again. The full story of the new name, Communication and Information Technologies, is beyond the scope of this article.

Sociological research programs took time to identify suitable subjects, find funding, and get underway. Computers, especially microcomputers, and electronic communication media were such new things that it was not easy at first to see which sociological theories and methods promised a large payoff. Although sociologists began analyzing the impact of computer-related technology more than 40 years ago (e.g., Boguslaw, 1965; Hiltz & Turoff, 1974; Orcutt & Anderson, 1974), there has been a recent surge of work. By the late 1990s various projects were underway, and paper sessions and roundtables received regular reports. Many of these projects are path-breaking research and, at the risk of omitting an important project, it is worth naming the larger projects for which section members have been principal investigators: Ron Anderson's International Computers in Education project (e.g., Plomp, Anderson, Law, & Quale, 2003), Ed Brent's work with artificial intelligence in research

methods and analysis of text data (e.g., Brent & Slusarz, 2003), Robert Kraut and Sara Kiesler's HomeNet project (e.g., Kraut, Scherlis, Mukhopadhyay, Manning, & Kiesler, 1996), Marc Smith's NetScan research (e.g., Smith, 2002), Barry Wellman's NetLab project (e.g., Wellman, 2002), Jim Witte's work with Internet surveys (e.g., Witte, 2004), and the sociologists doing computer simulations that have already been discussed.

Despite occasional problems of leadership and organization, the section has always been noted for the commitment and enthusiasm of its members. Section business meetings have been marked not just by administrative process but also by genuine intellectual controversies. The mission and value of the section has received repeated attention. Allocation of sessions to different topics has often fostered debates over the importance of different topics, including teaching, research, the Internet, ethics, and inequalities of access, to name just a few. As a result, the business meetings of the section, which in many other sections have all the appeal of a faculty meeting, have been attended by as much as 16% of the membership. This speaks well for the value that members place on the section that they are willing to attend yet another meeting.

Notes

1. This would also have been true of computer workstations running Unix, but they were not widely used in sociological work at that time.

2. Mainframe statistical software retained its advantages of IO speed and disk capacity. Large data sets (say, more than one million cases) continued to require mainframes into the mid-1990s. However, by 1990, Unix workstations were being used to analyze many if not most data sets that were too big for a microcomputer.

3. Realistically, the complexities of writing software using the Windows APIs (Application Programming Interfaces) to write interfaces required at least some formal training in Windows and a modern language, such as C, or hiring a professional designer and programmer. Few sociologists had the training to do it themselves or the financial wherewithal to hire a professional.

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