- In a similar way, speakers, organizers, and attendees of meetings can be electronically connected to facilitate quick and informal exchanges at all levels, largely replacing slow and costly conventional mail.

Regarding the last point, in the numerical analysis network, small meetings are often announced very early to tailor contents according to the requests from the community. This may be a more democratic way of managing meetings if insider circles can be put under pressure from the outside.

A central computer node run by the leading societies of our profession could provide further services, like maintaining and updating various databases useful to the general audience. One of them could be an on-line equivalent of a professional society directory which could be queried by sending it an electronic mail message. Also, one could establish a database of abstracts of technical reports, collected from statistics groups at universities, industrial laboratories, and journals. Full copies of reports could then be ordered from and sent by the authors or their departments, again preferably via electronic mail. An exciting aspect of this facility would be the capability for keyword search among reports and papers.

Another type of database maintained at a central node could be a collection of data sets, documented according to standards to be established. Access to the database would be provided on request from researchers trying out new methods as well as from teachers in need of data sets for their classes. One could go even farther and keep a record of short accounts of data analyses done in the past, with new accounts being incorporated as data sets are reanalyzed. This should ultimately result in an interesting history of data analysis by way of multiply analyzed data sets. A database of statistical software, or at least pointers to programs, could be tremendously useful, too.

We should point out that the proposals made above, although formulated in terms of a central node computer, could be realized in more decentralized ways as well. Schemes exist whereby copies of some or most of the databases could be kept locally in every computer, with some nodes providing updates periodically. We do not propose a particular implementation but the provision of services and capabilities of interest to the profession.

Last, we recommend that the statistical societies designate a few individuals with suitable expertise as consultants on computing issues for the profession. We hesitate to call this yet another "committee," but we sense that there are a sizeable number of statistics departments which have not yet developed sufficient expertise in computing matters and who need someone to turn to for start up help. It seems to us that some of the panel members, whose report we have at hand, would be especially qualified for this task.

Comment

David W. Scott

1. ABSTRACT

Eddy and his coauthors are to be warmly thanked for bringing together such a complete array of information for creating successful research computing environments at the departmental level. I have added a few observations, comments, and predictions directed to the very difficult task of communicating the "feel" of a good computer environment. I believe the authors' report should have a positive effect accelerating the availability of quality computing for statistical research.

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2. EXPANDING COMPUTER HORIZONS

Some 5 years ago in the **R** room overlooking Rice stadium, a data processing manager for an oil company addressed an assortment of academic and industrial computer experts. He remarked that for his large seismic processing operation to be successful, it required, in part, at least a 60-day backlog of jobs. Ten years ago when I graduated I believed that on-line computing was too expensive and wasteful of my time, encouraging unproductive experimentation rather than careful and thoughtful program development possible with batch processing, which of course was the only kind of computing available to me. While I cannot speak for the first gentleman, my own attitude toward computing has undergone some changes. My primary computing resource has seldom lasted longer than 2 years, beginning with an IBM 1620; in graduate