SESSION XII DEC USERS' GROUP MEETING AND CONTRIBUTED PAPERS

DORIS AARONSON, *New York University*, and JERRY FORSHEE, *Indiana University*, *Presiders*

DEC Users' Group Report: Fifth annual meeting of the National Conference on the Use of On-Line Computers in Psychology, November 5, 1975

DORIS AARONSON

New York University, New York, New York 10003

and

JERRY FORSHEE

Indiana University, Bloomington, Indiana 47401

The PDP-8, -11, and -12 Psychology Users' Groups met jointly to discuss two topics. First, future computer applications were considered in terms of both hardware and software needs. Psychology users specified their needs and DEC representatives described the directions their R & D program is currently taking, and how it will meet many of those needs. Second, the group discussed communication problems among the users, and between the users and DEC. Suggestions were made for improved information exchange. With this goal, a new PDP-11 Users Group was formed and Jerry C. Forshee, Indiana University, was elected Chairman.

FUTURE COMPUTER APPLICATIONS IN PSYCHOLOGY

The primary focus of the Digital Equipment Corporation (DEC) User Group meeting was on the directions that future hardware and software developments should take in order to meet the needs of psychology research laboratories. First, the users presented a list of recommendations including both products that could realistically be on the market at reasonable prices well before 1984 and products of a dream-world nature that might be expected by the year 2001. Many of the "realistic" products have recently appeared on the market but are not compatible with DEC computers, are not available from DEC, are too costly for the typical researcher's budget, or could be produced in the near future by making use of recent developments in microprocessor engineering. Next, DEC representatives described the specific products that will be available in the next year or two, and also those classes of products that are currently in the research and development stages. There was a good discussion on the ways that the goals of researchers and of DEC might converge, as DEC is

currently making decisions about new product directions and appears to be seeking information on user's needs. The types of products discussed by the users and the DEC representatives included the following.

Hardware

(1) Improved and less expensive display terminals that contain fast (parallel) transmission; letters of upper- and lowercase, and variable size and brightness; color and three-dimensional displays; and more sophisticated graphic capabilities.

(2) Fast-responding, reliable, and modular keyboards so that users could easily vary the number, arrangement, shape, and size of keys to meet the particular response needs of various classes of experiments.

(3) More complete, flexible, and reliable compatibility among DEC machines (e.g., of DECTape systems and of general purpose interfaces among PDP-8, -11, -12, -15) and between DEC and non-DEC machines.

(4) Improvements in variety and reductions in cost of analog input/output devices such as optical scanners, Rand-type tablets, speech synthesizers, and program-mable wave-form generators and analyzers.

Software

(1) More complete and usable software to translate programs and recode data from one to another machine within the DEC series.

(2) Truly interactive algebraic languages for *all* DEC machines (e.g., FORTRAN, BASIC, and FOCAL).

(3) Sophisticated scope editors (as opposed to scope simulators of Teletype editors) for both CRT and terminal-type displays.

(4) User languages for handling graphics, theoretical simulations, and computer-aided instruction.

USER-DEC COMMUNICATIONS

A second focus of the DEC User Group was on improving communications between the psychology users and DEC. Toward that end, DEC has formed a special division on applications in "Behavioral and Life Sciences." Two of their representatives were present at our meeting to participate in the above discussion on future DEC products. In addition, they hope that psychology users will feel free to contact them in the future to obtain advice and help in using specific DEC products and to make more general suggestions for changes at DEC that would increase DEC's effectiveness for our computer-based research. The DEC representatives present were from the Marlborough branch of the National DEC Office at Maynard: Steve Mullen (617-481-9511, ext. 6943) and Richard Wright (617-481-9511, ext. 6856).

PDP-8 AND -12 COMMUNICATIONS

User-group communications among the PDP-8 and -12 laboratories will continue to be handled by Doris Aaronson at the New York University Psychology Department, Room 858, 4 Washington Place, New York, New York 10003 (212-598-7668). She had mimeographed a roster of all DEC users (PDP-8, -11, -12, -15, etc.) who attended the Conference User Group meeting, indicating the machines and addresses of the users. Copies of these rosters were mailed to all individuals listed on the roster. Anyone not included on the list who would like to receive a copy, or who would like to be included on future DEC user rosters, should write to Doris Aaronson.

PDP-11 COMMUNICATIONS

A new National PDP-11 Psychology User Group Chairman was elected by the Conference Steering Committee. He is Jerry C. Forshee, Department of Psychology, Indiana University, Bloomington, Indiana 47401 (812-337-6122 or 812-337-1768). His ideas for the PDP-11 User Group appear below, and individuals interested in being included in those activities or in suggesting additional directions for the group should contact Forshee.

The PDP-11 Users' Group is planning several organizational projects for the current year. The preparation of a mailing list is well under way. We hope to make this list very inclusive, not limited to Conference members only, but extending to all researchers in the Life Sciences, where computers are used to automate and implement research. Current and prospective PDP-11 users will be included.

Once this mailing list is compiled, we will begin a periodic PDP-11 Users' Group Newsletter (appearing approximately monthly). With the newsletter, we hope to encourage and facilitate communication between users with similar interests and problems. The newsletter will contain articles, programs, and comments submitted by members of the users' group. Also, the newsletter will contain product announcements, both hardware and software, of special interest to PDP-11 users. The newsletter will contain announcements from DEC regarding PDP-11 products and services.

To further facilitate communication between users, we plan to survey all individuals on the Users' Group mailing list regarding their use of computers. The survey will provide data which will allow a description of each computer installation on several dimensions, i.e., type of research conducted, special types of paradigms used, hardware configuration (both purchased commercially and that custom-built by the user), and software systems in use (both operating systems and special software developed by the user of potential interest to other users). When these data are compiled, they will be made available to all members of the users' group, via the newsletter. The intention of this project is to provide data that will allow users to contact other users with the same interest, i.e., a particular hardware unit, a particular operating system, a particular type of research paradigm, etc. The data will also be useful to the individual with no experience on a particular entity (hardware or software) in contacting an experienced user for helpful suggestions.