The new way to "give a paper"

Program chairpersons and committee members of the world, lend us your attention.

There is restlessness among the masses who are expected to sit quietly in the gloom fighting off Morpheus while a succession of fellow scientists, terrified or cocky as the case may be, mumble or declaim. The only questions which need to be asked by those familiar with the subject at hand will—likely as not—be turned off by the chair for lack of time, and the speaker will escape to the dark recesses of a concurrent session.

Here, from a recent meeting of a biological society, we show an alternate way to communicate by word of mouth with one's peers, formally and yet, for both giver and seeker of truth, comfortably. A "poster session" is an adult version of the school science-fair format. The presentation is boiled down to what can be put up in readily legible words and graphics on a board of, say 8 x 10 feet. It remains up for some hours. The peers drift by and look it over. When discussion ensues, the presenter need feel no embarrassment to learn more from the questioner than vice versa. The occasion is less of a performance and more of an exchange at a mutually agreeable level of discourse among parties fascinated by the topic.

The passerby need not come ready equipped with that fascination. It can be engendered on the spot, right then and there.

The presenter who would rather have people stop than not stop uses photography to fascinate. A few well-done color enlargements probably work better and easier under the circumstances than projected slides or movies. If table space can be provided for actual specimens and equipment, so much the better. But it's the photographs that attract.

Potential poster presenters who are not photographically inclined personally will generally find that their institutions employ people who are so inclined and are there to render service.
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A powerful new desk-top programmable that gives you four dimensions of computation.

The HP 9815A provides keystroke calculation for scratch-pad-type problem solving; dedicated problem handling with automatic set-up; programmability for sophisticated problems; and interfacing capability for extended I/O, plus instrumentation control, data acquisition, and data processing. Add its range of peripherals, and its price, and you have a flexible, economical, on-site "computer" for virtually any lab.

Running a program on the new 9815 desk-top programmable calculator is this easy: position the mode switch to AUTO-START, plug in a prerecorded, high-speed data cartridge, and turn on the power. The calculator automatically loads and executes the first program on the cartridge. You can choose from HP's library of prerecorded program packs in such fields as statistics, electrical engineering, medicine, and surveying. Successive users can quickly personalize the calculator for their particular need.

Program and data storage is compact: a single data cartridge holds up to 48 programs, each up to 2,008 steps long, providing 96,384 bytes of memory.

Bidirectional search and interchangeable data and program storage capabilities give the calculator the power and speed to handle complex programs. The 9815 contains the computer functions necessary to give you complete programming language and power. Besides facile programmability, it has an extensive preprogrammed keyboard for quick, single-stroke calculations: 28 scientific function keys and 4 arithmetic keys. It has HP's own uncomplicated logic system, to give you answers you can trust. It has a built-in printer that prints instructions, and gives you a permanent, labeled copy of your calculation, plus a numeric display.

The fourth dimension of this new desk-top programmable is its interfacing capability. An optional $200* two-channel I/O module allows a choice of seven different HP peripherals to work with the 9815, including the new HP 9871A printer/plotter.

The 9815 also accommodates the Hewlett-Packard Interface Bus, which allows it to control, gather, and process data from as many as 15 HP-IB-compatible instruments. The 9815 also works well with BCD instruments and devices with 8-bit parallel interfaces. Quite a repertoire for a price of $2900*.
Highly autonomous Mini DataStation saves computer time and data transmission costs.

Featuring built-in mass storage, HP's second microprocessor-controlled interactive terminal performs by itself many data operations that otherwise require a computer.

The new 2644 Mini DataStation can dramatically reduce computer time and data transmission costs by allowing you to do data preparation and program development completely off-line. Equipped with two fully integrated tape transports, the 2644 provides 220,000 bytes of integral mass storage on interchangeable, shirt-pocket-size data cartridges.

These are some things you can do on the 2644, off-line, using only its own microprocessor-based capabilities:

- Enter data from the keyboard using any of its four plug-in, 128-character sets, and view the data instantly on a high-resolution display.
- Store data on tape. Many hours of work at the keyboard can be stored on a single cartridge by pushing a single button—and selectively retrieved in seconds.
- If data entry requires a form, call any of up to 255 variable-length files stored on tape and retrieve the form you want at search speed, usually within 10 seconds—with pushbutton ease.
- Edit the data, using the 2644's full editing capabilities, including character and line insert and delete, cursor sensing and positioning, and programmable protected fields.
- Batch-transmit stored data to the computer directly from the cartridge, at transfer rates up to 2400 baud.
- Move data among the 2644's functional units by pushbutton—between tapes, semiconductor memory, optional printer, and data communications interface.
- Expand terminal applications by using the 2644's dual tape unit so that one cartridge provides a write-protected input while the other provides a separate output.

The 2644 not only conserves computer resources and reduces communications line charges, it also improves the efficiency of data entry and provides a valuable backup during computer down-time. At $4,400* in quantities of six, the 2644 represents another reasoned advance that increases computing and data processing options at the user's level.

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MAJOR REPORT ON PROFESSIONAL WOMEN AND MINORITIES

PROFESSIONAL WOMEN AND MINORITIES—A Manpower Data Resource Service is a comprehensive new study published by the Scientific Manpower Commission for use by educational institutions, industry, and government. This 320-page publication brings together for the first time virtually all available data on manpower at professional levels with special emphasis on women and minorities in the natural and social sciences, engineering, arts, humanities, education and the professions.

Published in loose-leaf format with appropriate subject divider tabs, this four-part reference book includes basic information on affirmative action, manpower data in all fields from more than 100 sources; recruitment resources; and an annotated bibliography and cross index. Approximately 400 tables and charts with breakdowns by sex and/or minority status provide data on enrollments, degrees; and on general, academic and federal work-force participation by field and subfield. Each data resource section, arranged by field, is supplemented with textual highlights of the data and lists of specialized recruitment resources for women and minorities in that field. A continuing subscription service will provide semi-annual updates and supplementary data.

The 2-year preparation of this report was supported in part by The Ford Foundation.

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to enforce the law. To quote the U.S. Commission on Civil Rights, "... Clearly, the promise of equal employment opportunities has not been achieved in institutions of higher education; HEW's failure to enforce the Executive Orders has played no small role in frustrating this objective." (3). The General Accounting Office has also found that HEW negotiated and coordinated with colleges over prolonged periods rather than requiring them to prepare acceptable affirmative action plans, and has failed to penalize those that don't (4).

HEW has dragged its collective feet to the extent that it had to be ordered by a federal court to impose sanctions on ten states that had been in flagrant violation of the law for years (5). A suit has recently been filed alleging lack of enforcement of affirmative action by HEW and the Department of Labor (6).

Weinberger says that the regulations call for "good faith attempts" rather than strict quotas. However, in the area of affirmative action, the courts have held consistently that "good" or "bad" faith is not the keystone, but rather that the results of policies are what count (7). Any recruiting or promotion requirement that has a disparate effect on minorities must be validated as an "essential business necessity," but universities often refuse to do this, and HEW has not pushed the matter. Although academicians may hold as an article of faith that publishing is a valid predictor of future job performance, it is not proven. There are other facets to the job of being a "qualified" faculty member besides doing research (such as teaching and counseling), and these may not be predicted well by the amount of publication (8).

Where were the cries of horror and the concern for quality in years past, when the hiring pattern in major universities consisted of "you hire my graduate students and I'll hire yours," a system which perpetuated the old-boy network to the exclusion of women and minorities? It seems to me that universities are being hypocritical if they complain about the possibility of having to hire a possibly unqualified minority (without any validation of the standards used for qualification) when, in fact, the percentage of minority faculty members has not increased perceptibly in the last few years.

BERNARD ORTIZ DE MONTELLANO Society for the Advancement of Chicanos and Native Americans in Science, Post Office Box 3831, Albuquerque, New Mexico 87110

References


Hepatitis B Vaccine

In the interest of a more complete representation of the present state of development of a vaccine against the ubiquitous and debilitating hepatitis B virus (HBV), I would like to add some relevant information omitted from Thomas H. Maugh's article (Research News, 11 April, p. 137). Maugh reports that two groups of investigators, one from the National Institutes of Health and one from the Merck Institute, have independently developed a new vaccine against HBV, a vaccine containing hepatitis B surface antigen (HB,Ag) isolated from chronic asymptomatic carriers of HBV.

In 1974, a group from the State Institute of Hygiene, Warsaw, Poland, headed by A. Nowoslawski and myself, developed a vaccine based on the same principle as that of the American investigators. To isolate HBV-derived antigens (HB,Ag, HB,Ag) from the sera of chronic asymptomatic carriers of HBV, we used immunoblotting column chromatography, followed by formalin inactivation of HBV-derived antigens.

The vaccine has been tested for immunogenicity in humans with both acute and chronic hepatitis B and in patients convalescing from hepatitis B infection (1). Safety controls for the first batch of vaccine have been established in chimpanzees, and challenge experiments have been performed, also in chimpanzees, here at the Wistar Institute. Additional batches of vaccine will be available soon, and their protective effect will be checked in humans in HBV endemic areas.

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