From the Education Committee chairman

The Education Committee of the Computer Society is charged with the tasks of (1) collecting data about industrial/governmental/societal computing needs and current computer-oriented programs, (2) making recommendations for new/updated educational programs to better meet the needs, (3) designing curricula, course content, or accreditation guidelines for new/existing programs in the area of computing, and (4) assisting educators and computing professionals in the use or implementation of these recommendations or guidelines. These tasks are carried out each year through a combination of workshops, working sessions, reports, publications, correspondence, subcommittee meetings, and annual meetings at COMPCON Spring, COMPCON Fall, COMP SAC, and NCC, along with occasional cooperative meetings with our friends from other constituent societies of AFIPS, such as ACM.

We thank you—the members of the Computer Society—for giving us this opportunity to outline the committee’s objectives, subcommittee organization, current activities, and planned activities. Remembering that we are always in need of your abilities, input, and support while trying to serve you, we hope that you will join the other 300 or so Education Committee members with whom we have communicated this year.

Objectives. Since 1973-74 the Education Committee has designed model curricula related to computer science and computer engineering in their broadest interpretation. We will not forget those who have gone before us—that very early group of MIT engineers who in the late 40’s and early 50’s published the first curriculum reports in the Transactions of the IRE; that IEEE group working from 1963-67 on the Cosine reports; that ACM group working from 1964-68 on the Curriculum ‘68 reports; and the many updates to the above efforts until we began our work in dusty corners and smoke-filled rooms under C. V. Ramamoorthy and M. C. Mulder.

While we continue to assist educators in carrying out the intent of the committee’s 1976 Model Curriculum at the undergraduate level, we have set as a goal the designing of three other curricula reports at the graduate, community college, and pre-college (elementary and secondary) levels. The first draft of the curricula materials guidelines for software engineering at the master’s level has passed through an extensive study by the Executive Committee of the society (this temporarily ends a real learning experience by all who have participated). We intend to publish these guidelines this year in book form, after making the Executive Committee’s suggested packaging changes. At the community college level an advisory task force is currently collecting data in order to design and recommend curriculum in computer system technologies, including software technician and microelectronics technician programs. This task force draws half of its membership from industry (e.g., DEC, H-P, NCR, IBM, RCA) and half from the community college field. A national survey (aided in part by our members from industry), first-round designs, and invited papers will be presented at a special workshop following COMPCON 80 Spring.

At the pre-college level, the Education Committee is assisting with the design and implementation of a series of TV courses on personal computing and computer literacy, with grant support from the Computer Society, Radio Shack, and Johns Hopkins University. It will be broadcast this year through the members of the International Instructional Television Cooperative, Inc.; Paul Hazan is project director at JHU. At the undergraduate level, the Computer Communications Subcommittee, co-chaired by Ken Thurber of Univac and Gerald Masson of Johns Hopkins University, is designing junior-senior level course materials in computer communications; TV tapes and instructor’s guides are available to supplement the course descriptions.

The accreditation guidelines of the Engineers’ Council for Professional Development, or ECPD, have been out for some time for those institutions seeking accreditation of computer science or engineering programs; they are being continually reviewed and updated. The Accreditation Subcommittee has undertaken a study of possible accreditation guidelines for software engineering. Possible accreditation guidelines for the community colleges’ computer systems technologies programs currently under design will also be studied.
We wish to thank Ed Ernst, subcommittee chairman, for improving our understanding of accreditation issues. For an interesting capitalized interpretation of issues relating to software engineering and community college materials, we recommend "Exploding Technology: Evolving Curriculum," an Education Committee Workshop Publication, published March 2, 1979 and printed by the Computer Science Department, Oregon State University, Corvallis (Earl Ecklund, ed.).

Subcommittees. The Education Committee currently consists of the following subcommittees (listed with their chairmen):

**Accreditation**
- Ed Ernst
  - Dept. of Electrical Engineering
  - University of Illinois
  - Urbana, IL 61801

**Community colleges**
- David Hata
  - Electronics Technology
  - Portland Community College
  - 12000 SW 49th Dr.
  - Portland, OR 97219

**Computer communications**
- Kenneth Thurber
  - Sperry-Univac Corporation
  - PO Box 3525
  - St. Paul, MN 55165

**Computers in medicine and health**
- Ed Angel
  - Dept. of Electrical Engineering and Computer Science
  - University of New Mexico
  - Albuquerque, NM 87131

**Curriculum implementation and assistance**
- Earl Ecklund
  - Computer Science Dept.
  - Oregon State University
  - Corvallis, OR 97331

- Yale Patt
  - Computer Science
  - San Francisco State University
  - 1600 Holloway Ave.
  - San Francisco, CA 94132

**Design automation**
- Jack MacDonald
  - Electrical Engineering
  - Rensselaer Polytechnic Institute
  - 110 Eighth St.
  - Troy, NY 12181

**Library list, cont'd**
- Gerald Engel
  - Computer Science
  - Christopher Newport College
  - Newport News, VA 23606

**New graduate programs**
- George Davida
  - Computer Science and Electrical Engineering
  - University of Wisconsin
  - Milwaukee, WI 53201

**New undergraduate programs**
- Randell Jensen
  - PO Box 92919
  - Airport Station, Bldg. 390
  - Mail Station X-309
  - Data Processing Laboratory
  - Hughes Aircraft Corporation
  - Los Angeles, CA 90009

**Pre-college (esp. TV series)**
- Paul Hazan
  - Applied Physics Laboratory
  - Johns Hopkins University
  - Laurel, MD 20810

**Software engineering**
- Richard Fairley
  - Computer Science Department
  - Colorado State University
  - Fort Collins, CO 80521

**TC liaison and self-assessment**
- Tilak Agerwala
  - IBM Thomas J. Watson Research Center
  - PO Box 218
  - Yorktown Heights, NY 10598

**Tutorials**
- Stanley Winkler
  - IBM Corporation
  - Old Orchard Road
  - Armonk, NY 10504

**Interested readers are invited to contact the appropriate subcommitte chairman or the Education Committee Chairman:**
- David C. Rine
  - Suite 447 Stipes Hall, QIS
  - Western Illinois University
  - Macomb, IL 61455

**Current activities.** In carrying out this year's objectives the Education Committee had the benefit of many hours of hard work by its members. The committee has actively participated in 10 major conferences and workshops, including SIGCSE, COMPSCAC 78, ACM 78, IEEE Mexico City, COMPCON 79 Spring, and NECC-1. Moreover, 35 papers have been published describing the committee's work. Earl Ecklund and Yale Patt organized an especially fruitful workshop for West Coast educators the Friday following COMPCON 79 Spring; they are planning a similar workshop in Chicago following COMPSCAC 79, and are also planning an applications software design workshop for the IEEE Mexico City membership. The Community Colleges Subcommittee is organizing a workshop on computer systems technologies curricula, to be held after COMPCON 80 Spring.

Doris Lidtke of the Library List Subcommittee is placing the updated list on a DBTG-design data base for more flexible information extraction. Publishers or educators interested in submitting or reviewing data for entry are encouraged to contact Dr. Lidtke. Work on the Model Curriculum in Computer Science and Engineering continues; tutorial primers elaborating CSE materials will be published in Computer and later as monographs. We are also happy to report that the Biomedical Engineering Committee used the CSE Curriculum as a guideline to write the biomedical engineering curriculum.

Planned activities. It is clear from talking with computer industry representatives that community college graduates need a better understanding of both hardware and software techniques; this problem will be addressed. And just as there is in the US a need for persons with advanced training in software engineering, there is a similar need in developing countries for persons trained in applications software design—we invite our international colleagues to help us with this problem. The future of VLSI-based distributed computing systems is only partially understood, and we will therefore need far-sighted educators to advise us regarding the training programs in this area.

Elementary and secondary schools have now acquired many microcomputers and significant terminal access; however, there is a great need to bring to this level of education the benefits of better educational software maintenance and delivery systems. This might now be provided by advanced downloading techniques from educational networks to microcomputer systems, for example. We hope that computer communications and pre-college professionals will join hands in this effort.
A broader spectrum of advanced training beyond the bachelor's degree is also needed, and many feel that 10 percent of a computer professional's working day should be spent on continuing education. We will therefore expand the present work on Master's in Software Engineering materials to include other master's degree programs (e.g., in computer science and engineering) and self-assessment learning techniques; for this we will need more technical input and liaison from our technical committees.

Other committee needs. In addition to the above, we desperately need technical expertise for rapid development of education-training and curriculum-course guidelines in the following areas:

- The use of computers/robots in improving mine safety and accelerating mine production;
- The use of computers in accelerating conversion to alternative energy sources;
- The use of very low power systems in very large computer networks;
- The use of VLSI and computer networks in supporting and personalizing pre-college instruction in computer literacy (and in supporting CAI in subject areas) at low-cost/high-benefit rates; and
- Applied computer systems design for developing countries (fluent language and computer expertise needed).

We encourage the Computer Society membership to actively participate in and lead the future directions of the Education Committee; we look forward to your contributions and ideas.

David C. Rine  
Chairman  
Education Committee

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**LETTERS TO THE EDITOR**

**Attn: Micro-genealogists**

*Editor:*

I would very much appreciate a brief note in *Computer* about a specialized interest of mine in the hope that it might be read by others of a similar interest.

Briefly, I bought a microcomputer* last year in the hope that it would bring order out of chaos in the collected documentation I have of several thousand ancestors. I would like to be able to store, file, sort, retrieve, and cross-reference genealogical data. I would like to be able to have pedigree, individual, and family group printouts as well as indexes. The Mormons have done excellent work, but they use IBM 370s. Some work out of the University of Utah has focused on minis using an excellent soundex code with pointer systems for parents and progeny, but the adaptation to micros is not clear.

I would like to hear from others of a similar interest (it also has relevance to tracing genetic disorders, and there are other analogs) so that possibly a network of information could be pooled and shared.

Clifton M. Howard, MD  
58 Van Orden Road  
Harrington Park, NJ 07640

*An APPLE II (6502)*

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**Flite a fourth?**

*Editor:*


The first full paragraph in the second column of the article (which appears on p. 15 of *DPI*) states:

Large-scale full text systems have initially been developed for legal information retrieval where an abstract may not be sufficient either for examining the results of a search or as an item to be searched. Three major systems currently exist—Lexis, Westlaw, and Juris.

A fourth system exists. It is older than the three listed. It is the FLITE system.

Perhaps the FLITE System was overlooked because it operates as a batch processing system rather than an on-line interactive system.

Michael E. Murphy  
Lt. Colonel, USAF  
Chief, FLITE

As Colonel Murphy correctly guessed, the reason I did not mention FLITE is that it is a batch system, which by its nature does not demand the specialized search hardware discussed in the article; in addition, it uses an inverted file (a technique outside the scope of the article) to further reduce its search requirements.

There have been a number of excellent batch text retrieval systems, although their lack of immediate response to a user's query has generally required that they be used only by specially trained personnel. However, they have established the concept of text retrieval as an effective research tool, a fact on which all following interactive systems are based.

Lee A. Hollaar  
University of Illinois, Urbana-Champaign

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To be considered for publication, a letter to the editor must be accompanied by a statement giving *Computer* permission to publish that letter.