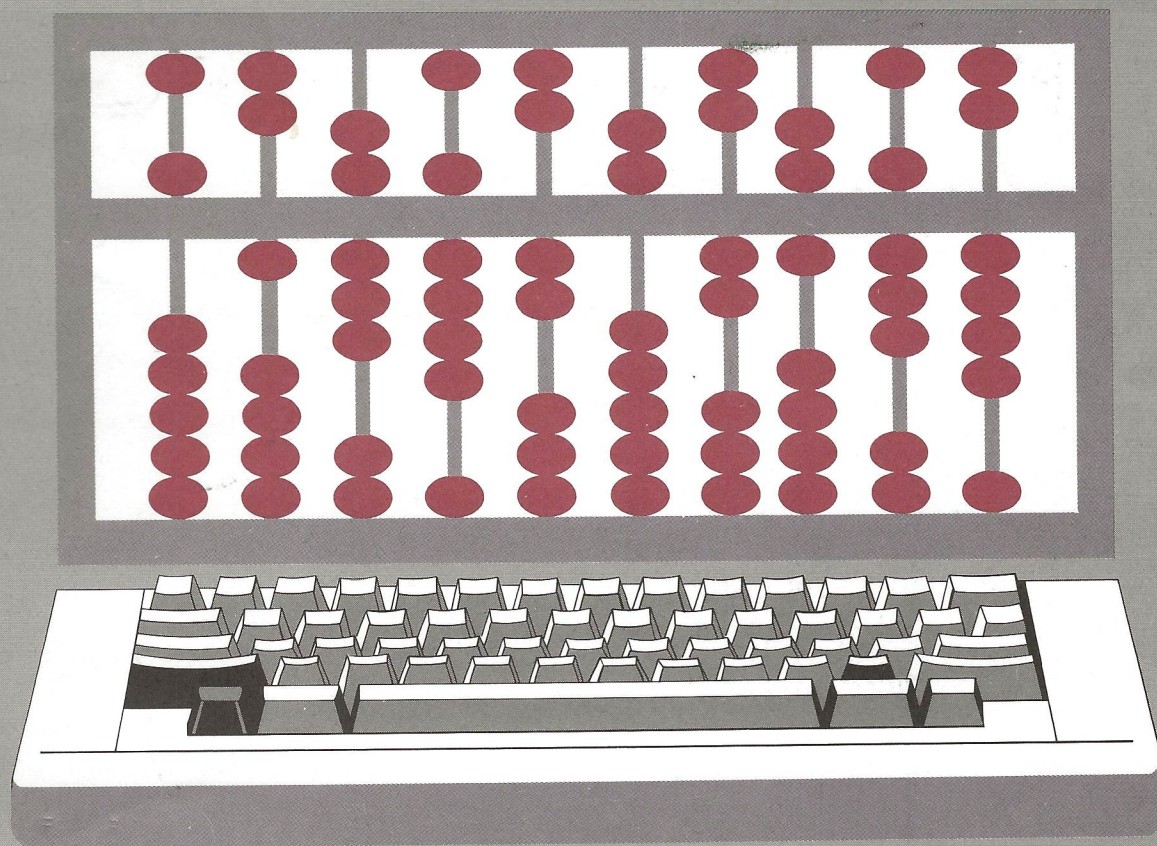


WCCE / 85

WORLD CONFERENCE ON COMPUTERS IN EDUCATION

July 29 - August 2, 1985



IFIP

Sponsored by: TC-3, the Technical Committee for Education of the
International Federation for Information Processing (IFIP)
and the
American Federation of Information Processing Societies (AFIPS).

afips



Invitation

All of us involved in the 1985 World Conference on Computers in Education, WCCE/85, extend a most sincere invitation to you to participate in the meeting. The field of computers in education is very exciting, and all of us have found this excitement strongly present in the planning involved in WCCE/85.

A very full program for five days is presented on the following pages. In addition to these formal activities there will be numerous opportunities for participants to interact with one another, to view the exhibits, and to participate in less formal meetings and sessions. There is also an excellent selection of Pre-Conference Workshops. We believe you will find the Conference both challenging and rewarding.

The conference site, Norfolk, Virginia, USA, offers numerous historic and cultural landmarks within walking distance of the conference activities. A short drive will place you in some of the most popular vacation locations in the United States. You will enjoy being in Tidewater Virginia.

WCCE/85 will provide you with an opportunity to be brought up to date on what has happened in the area of computers in education worldwide, what is currently going on, and what the future holds for this field. Please come to Norfolk and join us. Participate in the sessions, enjoy the area, and most importantly, share with all of us your experiences and ideas.

Gerald L. Engel
University of Connecticut, Stamford
Chairman, *Organizing Committee*
John W. Hamblen
University of Missouri, Rolla
Chairman, *Program Committee*

Organizing Committee

Gerald L. Engel, *Chairman*
John W. Hamblen, *Vice Chairman and Program*
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Theodore J. Sjoerdsma, *Treasurer*
Diana Harris, *Co-Editor*
Ralph E. Lee, *Workshops*
David E. Game, *Local Arrangements*
Sylvia Charp, *TC-3 Liason*
Richard L. Dobson, *AFIPS Headquarters Liaison*

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Japan, S. Otsuki
Morocco, M. Najim
Netherlands, D.H. Wolbers
New Zealand, C.R. Boswell
Norway, A. Staupe
Poland, S. Waligorski
South Africa, G. Wiechers
Southeast Asia, S.C. Chan
Spain, R. Portaencasa
Sweden, H. Lawson
Switzerland, R. Morel
United Kingdom, J.L. Alty
United States, S. Charp
Yugoslavia, A. Mandzic

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TC-3/WC 3.2 Chairman, W.F. Atchison
TC-3/WG 3.3 Chairman, R.E.J. Lewis
TC-3/WG 3.4 Chairman, P.G. Raymont
TC-3/WG 3.5 Chairman, F.B. Lovis



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Sponsors

WCCE/85 is co-sponsored by TC-3, the Technical Committee for Education of the International Federation for Information Processing (IFIP) and the American Federation of Information Processing Societies, Inc. (AFIPS).

General Information

Beginning of the Conference

Monday, July 29, 1985, 10:00

End of the Conference

Friday, August 2, 1985, 15:00

Location of the Conference Sessions

Downtown Norfolk, Virginia, USA

Conference Information

AFIPS

1899 Preston White Drive

Reston, VA 22091 USA

800-622-1985 or 703-620-8955

TWX 710-833-9037

Registration

Pre-registration form follows in this brochure.

Registration hours at the Conference in the SCOPE Convention Center are:

Friday, July 26	08:00-09:00
Saturday, July 27	08:00-09:00
Sunday, July 28	08:00-09:00 13:00-17:00
Monday, July 29	08:00-17:00
Tuesday, July 30	08:00-17:00
Wednesday, July 31	08:00-12:00
Thursday, August 1	08:00-17:00
Friday, August 2,	08:00-10:00

Registration Fees

Full conference attendees:

Before April 1, 1985	\$100 US
Before June 1, 1985	\$125 US
After June 1, 1985	\$150 US

One day:

Attendance only without WCCE Proceedings,
\$40 US

Form of Payment

Payment must be made in US currency and is payable by personal check, money order, credit card or wire transfer. Checks may be made payable to WCCE/85. American Express, MasterCard and VISA credit cards will be accepted. International attendees are encouraged to register in advance via TWX 710-833-9037. Simply tell us exactly what you wish to register for and give us your credit card number. We will confirm your

registration via TWX within 48 hours. Direct wire transfers may be made, but you must also mail us your registration form or send your choices via TELEX. Send direct wire transfers to Central Fidelity Bank, Richmond, Virginia, USA; TELEX 240517, SWIFT CFBRU33. Please give your name and state clearly that funds are to be credited to AFIPS for WCCE/85. All prices are listed in US currency.

Hotels and Restaurants

Hotel information and reservation form are included in this brochure. Lists of area restaurants will be available at the information desk.

Messages

A message service will be maintained in the registration area. Attendees are encouraged to check it regularly. The message center phone number will be listed in subsequent registration materials and in the final program.

Exhibits

The Conference will include an extensive exhibit area. The hours of the exhibition will be:

Monday, July 29	12:00-19:00
Tuesday, July 30	10:00-19:00
Wednesday, July 31	10:00-14:00
Thursday, August 1	10:00-14:00

Postal Service

Inquire at the conference information booth in the registration area.

Banking

Currency exchange and bank services will be available at Sovran Bank, Headquarters Office, located across the sky-walk from the Omni International Hotel.

Dress

Informal dress is recommended for all conference activities. The weather in Norfolk will be quite warm with a chance of occasional rain, primarily in the afternoon.

Language

English will be the official language for all conference activities. There are no facilities for simultaneous translation at WCCE/85.

Pre-Conference Workshops

Friday, July 26; Saturday, July 27; and Sunday, July 28. See description in this brochure.

Conference Activities

Conference Activities

Paper Sessions

Papers will be presented in a variety of research and application areas. All papers included in the Program were refereed by international experts in computers in education. Papers have been written in virtually all areas to which computers have been applied in education and span all levels, from early childhood to university and continuing adult education.

Special Sessions

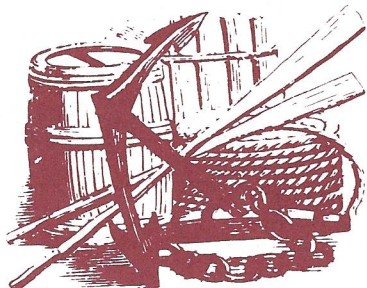
These sessions will focus on the current status of educational use of computers internationally and will give projections for the future of computers in education.

Tutorial and Panel Sessions

Topics of current interest will be discussed by noted authorities from both academic and non-academic institutions. The Tutorial Sessions will introduce topics of interest in extended conference sessions, usually occupying one-half day. The panels will provide the most current thinking of experts in the field.

WCCE Proceedings

A conference edition of the WCCE Proceedings will be provided to each individual registering for the full Conference. The WCCE Proceedings should serve as a major resource document, indicating the state-of-the-art of computers in education throughout the world. Additional copies of the WCCE Proceedings, in hard cover edition, and copies of the Proceedings of previous World Conferences on Computers in Education (1970, 1975, and 1981) are available from North-Holland Publishing Company, P.O. Box 1991, 1000 BZ Amsterdam, The Netherlands.



Exhibits

An exhibition encompassing 30,000 net square feet of exhibit space will offer a full spectrum of all that is available in educational computing. Over 100 exhibitors will demonstrate the latest technology and programs available at all educational levels. The following is a partial listing of product categories to be represented in the exhibition:

- computer systems
- systems software
- educational software/courseware
- peripherals
- telecommunications
- video display terminals
- graphics
- magazines and newspapers for the educational computing professional
- video equipment
- voice technology

Admission to the exhibit floor is included in the registration fee.

EXHIBIT HOURS

Monday, July 29	12:00-19:00
Tuesday, July 30	10:00-19:00
Wednesday, July 31	10:00-14:00
Thursday, August 1	10:00-14:00

INFORMATION

For further information call:

Diana Lefcowitz
AFIPS
1899 Preston White Drive
Reston, VA 22091 USA
Phone 703-620-8927
TWX 710-833-9037

Special Events

CONFERENCE RECEPTION

An informal reception will be held Sunday evening, July 28, in Chrysler Hall from 19:00-22:00. Attendees, their families and guests are invited. Participants are encouraged to come early to greet old friends and make new ones among the attendees from around the world. The reception is intended to prepare attendees in a relaxed atmosphere, for the activities of the coming week.

INFORMAL RECEPTIONS

Monday and Tuesday evening from 17:30-19:00 there will be informal receptions in the exhibit area.

Conference Activities

WEDNESDAY AFTERNOON

There will be no formal conference activities on Wednesday afternoon or evening, July 31. This time is for informal meetings that attendees may wish to schedule, and for an opportunity to sightsee in the Tidewater Area. The Conference Committee will sponsor a trip to Williamsburg, Virginia to view the restored colonial capital of Virginia; and a trip to Busch Gardens, for an afternoon and evening of family oriented entertainment. Details and costs of these trips will be available at the information desk in the registration area.

BREAKFAST WITH THE EXPERTS

In order to promote individual contacts among participants and to encourage the exchange of ideas, groups of ten people will be organized to have breakfast together and discuss an agreed upon topic. One of the group will be a recognized authority on that topic and will lead the discussion.

These round table discussions will be held Thursday, August 1, from 08:00-09:00. The cost of the session will be \$7.50 US which includes continental breakfast. Registration for these sessions will be available in the registration area and must be completed by the close of registration on Monday, July 29. Registration forms will list the available topics and the individuals who have agreed to lead each discussion.

There will be 30 tables, and registration will be closed when all the available spaces have been reserved.

OTHER EVENTS

Other events and tours will be arranged. Attendees are encouraged to check at the information booth in the registration area for an updated and complete list of conference activities.

Continuing Education

Continuing Education Units (CEU's) are permanently recorded certification of your attendance and participation in a continuing education activity. For WCCE/85, and its related workshops, CEU's will be available through Christopher Newport College, Newport News, VA. To receive CEU's, complete a form available at the registration desk, and return it during the Conference. A \$5 US fee will be charged to cover the cost of processing and recording.

Meeting Place and Housing

All meetings, special sessions, and exhibits will be held at the SCOPE Convention Center, the Holiday Inn/Waterside and the Madison Hotel, all within walking distance of each other in downtown Norfolk, Virginia. Certain additional conference activities will be held at the Omni International Hotel, which is about eight blocks from the SCOPE Convention Center. Housing will be available in a variety of hotels and motels in Norfolk. Economy housing is also available at Old Dominion University, about five miles from downtown Norfolk. *All housing reservations must be made on the Official Housing Form provided with this brochure.* You are encouraged to complete and return it to the address indicated as soon as possible to ensure that you are able to obtain your first choice in housing accommodations.

Shuttle Bus

Complimentary shuttle bus service will be provided from outlying hotels, motels and Old Dominion University. Schedules will be available in the registration area and the housing units. A downtown shuttle service is provided by the city of Norfolk at frequent intervals.

Camping and RV Facilities

A variety of camping facilities are available in the Tidewater Area. For further information about such facilities call AFIPS 800-622-1985 or 703-620-8955.

Travel Arrangements

Norfolk is served by eight major airlines, as well as by interstate bus service. Easy connections into Norfolk are available through New York, Atlanta, Chicago, Philadelphia and Washington, D.C. The airport is approximately twelve miles from the SCOPE Convention Center. Frequent limousine service is available at a cost of approximately \$5 US per person. Taxi service from the airport to the downtown area costs between \$10 US and \$12 US. Car rental facilities are available at the airport.

Norfolk is located on the Mid-Atlantic Coast where the James River flows into the Chesapeake Bay, an area known as Hampton Roads, the world's largest natural harbor. The easiest driving approach to Norfolk is via Interstate 64. Driving time from Washington, D.C. via Interstate 95 and Interstate 64, is approximately three and one-half hours.

Conference Activities

Travel Support

A limited amount of money has been set aside to provide partial travel support to individuals requiring assistance in attending WCCE/85. These funds will partially cover the cost of attendance. Individuals interested in applying should submit a letter of application, indicating their special needs and requirements to the following address:

Gerald L. Engel
Computer Science and Engineering
The University of Connecticut, Stamford
Scotfieldtown Road
Stamford, CT 06903 USA

Application for travel support must be received no later than May 1, 1985.

Registration

PRE-REGISTRATION

Pre-registration is essential for the Pre-Conference Workshops. Registration for these functions should be postmarked by June 10, 1985.

You are encouraged to pre-register for the Conference itself. This will minimize the time necessary to wait in registration lines at the Conference and will allow for a significant cost savings. The registration costs for the Conference, including admission to all sessions, exhibits and a conference edition of WCCE Proceedings, are as follows:

Before April 1, 1985	\$100 US
By June 1, 1985	\$125 US
After June 1, 1985	\$150 US

One day:

Attendance only without WCCE Proceedings,
\$40 US

PLEASE NOTE: Registration is required for attendance at any/all formal conference activities; program, exhibits and social functions. Registration for spouse/children over 14 will be available, on-site only at \$10 US. This registration allows for attendance at exhibits and social functions only.

Please use the Registration Form in this brochure to pre-register or call AFIPS 800-622-1985 or 703-620-8955. TWX 710-833-9037

ON-SITE REGISTRATION

Registration hours at the Conference in the SCOPE Convention Center are:

Friday, July 26	08:00-09:00
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Sunday, July 28	08:00-09:00 13:00-17:00
Monday, July 29	08:00-17:00
Tuesday, July 30	08:00-17:00
Wednesday, July 31,	08:00-12:00
Thursday, August 1,	08:00-17:00
Friday, August 2,	08:00-10:00

Area Activities and Attractions

Norfolk and Tidewater Virginia offer a variety of activities of interest to everyone. Sightseeing as well as restaurant information will be available at the information desk in the registration area. Time should be reserved to see the Virginia Coast and the Virginia Peninsula with the NASA Installation, as well as the Williamsburg, Jamestown, and Yorktown historical areas. The Outer Banks of North Carolina and the Eastern Shore of Virginia make very pleasant day trips from Norfolk.

Within Norfolk itself there are a variety of things to see and do. Waterside next to the Omni International Hotel is a festival marketplace offering a variety of shopping as well as dining possibilities. Tours of Norfolk Naval Station are easy to arrange and provide an opportunity to view the home port of the United States Atlantic and Mediterranean fleets.

Within walking distance of the conference sites are the Chrysler Museum of Art, the Douglas MacArthur Memorial, and St. Paul's Church, which was the sole survivor of the British bombardment of Norfolk in the Revolutionary War. Boat tours of the Hampton Roads Harbor are available in the area adjacent to Waterside.

Enjoy Norfolk, its sights, its dining and its shopping. Directions and assistance in planning your visit will be available in the registration area.

Pre-Conference Workshops

PRE-CONFERENCE WORKSHOPS will be held on July 26, 27, and 28 from 09:00 to 16:30 at the Norfolk SCOPE Convention Center, and the Holiday-Inn/Waterside in Norfolk. The fee for a one day workshop is \$65 US. This is in addition to your conference registration fee. If the workshop is for two days the fee is \$130 US. If you wish to attend more than one workshop you must register and pay the fee for each. Registration for the workshops is strictly limited and is on a first-come, first-served basis. **YOU MUST BE PRE-REGISTERED FOR EACH WORKSHOP, AND YOUR REGISTRATION SHOULD BE ACKNOWLEDGED IN ORDER TO BE ABLE TO ATTEND.** Deadline for registration is June 10, 1985. Workshop schedules, topics and presentors are as follows:

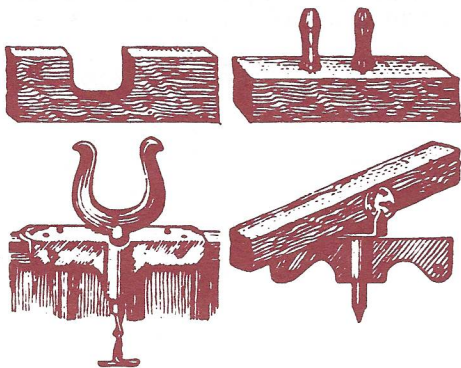
Friday, July 26, 09:00–16:30

A-1 COMPUTING TOOLS FOR STUDENT PROBLEM SOLVING

Michael Burger, Texas A&M University; Dale Behrens, Hastings College; Ron Naugle, Nebraska Wesleyan University; Arlie Fandrich, Union College

Number of Participants—32

A group of faculty and consultants will present a curriculum, approach, syllabus and instructional materials for introductory level courses. These materials have been developed during the past two years as part of a project supported by the Fund for the Improvement of Postsecondary Education (FIPSE). Elements and key features of the design are: application of software methods for teaching, activities to help students master software tools and integrating software packages with telecommunications and graphics.



A-2 MICROCOMPUTERS IN THE SCIENCE LABORATORY: AN INTRODUCTION

Robert E. Tinker, TERC Technology Center
Number of Participants—32

One of the most promising applications of microcomputers in science instruction involves using the computer for real-time data acquisition. This workshop will review commercially available software aimed at audiences from elementary school through college. Participants will also have an opportunity to build their own simple interface and will be introduced to the techniques and software tools required for the development of new software of this sort. This workshop is of interest to science teachers and curriculum planners at all levels. A knowledge of BASIC programming is required, but no experience with electronics or interfacing is necessary.

A-3 INTRODUCTION TO LOGO

Joyce Tobias, Carolyn Markuson, Jerry Short, Education Consultants
Number of Participants—30

This workshop will provide a hands-on approach to programming in LOGO with an emphasis on graphics. It is designed for people with no experience in LOGO. The relationship between LOGO philosophy and teaching methodology will be explored. Participants will have the opportunity to learn how to write and edit procedures and do problem solving with LOGO.

A-4 PLANNING IN-SERVICE TRAINING IN EDUCATIONAL COMPUTING

Don Rawitsch, MECC
Number of Participants—50

The key to a successful school computing program is the preparation of educators. In-service training is a critical need at a time when school program planners and teachers typically do not have educational computing as part of their background. This workshop is designed to provide participants a perspective on planning in-service programs and activities. The set of topics that might be included in an in-service program, suggested models for classes for computing beginners and classes for educators beyond the beginning stage, simple training activities, and logistics in planning training events will be discussed.

Pre-Conference Workshops

**Saturday, July 27,
09:00–16:30**

**B-1 LEADERSHIP DEVELOPMENT FOR IN-
STRUCTIONAL COMPUTER COORDINA-
TORS AND TEACHERS**

David Moursund, ICCE
Number of Participants—50

The workshop is designed for instructional computer coordinators, computer education teachers and other people who play a leadership role in instructional uses of computers at the precollege level. The workshop is built around a general analysis of precollege instructional uses of computers, along with the computer-oriented preservice education and inservice education of educators. This analysis leads to the identification of a number of needed leadership traits.

**B-2 COURSEWARE DEVELOPMENT WITH A
SET OF PROGRAMMING TOOLS**

Arlan R. Dekock, University of Missouri, Rolla
Number of Participants—35

This workshop is intended for educators with some background in programming and data structures, but it assumes no background in artificial intelligence. The major topics covered will include (1) a history of artificial intelligence research; (2) the major search mechanisms employed in AI problem solving; (3) the principal methods of information representation; (4) popular methodologies for building expert systems; and (5) a speculative overview of where artificial intelligence may be going in the next few years.

**B-3 APPLICATIONS OF DATA BASES AND
GRAPHICS IN INSTRUCTIONAL SETTINGS**

Judith Morton, Ruth Muskopf, Education Consultants

Number of Participants—32

This workshop will introduce participants to the concept of local data bases. Participants will learn how to use data base software programs. They will create a data base, access it, graph the results, and generate reports from it using word processing. They will learn how data base programs may be used in instructional settings. The workshop will be directed primarily toward middle school and secondary school educators. Topics of discussion will include: what is the function of a data base program, how is the information organized and entered into the program, accessing information in a data base, how

may graphics and word processing be used to generate reports and what kinds of learning may be expected when students create and use data bases in class.

**B-4 NATIONAL PLANNING AND POLICY FOR
COMPUTERS IN EDUCATION (First of two
days)**

Ben Zion Barta, Israel Representative to IFIP TC-3
Number of Participants—40

National plans and policies of four different countries will be presented, explained and discussed. The speakers will emphasize their experiences, the difficulties and successes, in implementing these plans during several recent years. The discussions will focus on methods and problems relating to the preparations of such plans and the start of their implementation. This two-day workshop is intended for senior officials and/or senior professionals who are involved, or readying themselves to prepare/implement national plans for computers in education. Three or four lectures will be delivered each day and at least three hours will be dedicated to discussion from the floor. The topic for the first day—professional and scientific aspects; the topic for the second day—administration and financial aspects, as well as a general overview of the workshop as a whole.

**B-5 METHODS AND MATERIALS FOR A CON-
CEPTUAL APPROACH TO TEACHING COM-
PUTER PROGRAMMING**

John McGregor, Murray State University
Number of Participants—40

This workshop will present methods and materials for a conceptual approach to teaching computer programming. Specifically, workshop participants will:

(1) Learn to use concrete models of hardware and software operation to illustrate basic concepts;

(2) Learn to write structured programs even with unstructured compilers/interpreters;

(3) Develop instructional materials using techniques such as the cloze procedure for reading;

(4) Develop evaluation instruments for micro as well as macro level instructional objectives; and

(5) Explore the use of diagnostic techniques in isolating and correcting student misconceptions.

This workshop should be of interest to anyone who teaches programming, whether at the secondary or college level.

Pre-Conference Workshops

B-6 PROGRAMMING TOOLS FOR MICROCOMPUTER COURSEWARE DEVELOPMENT

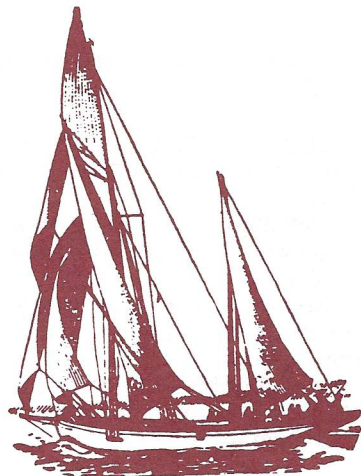
Pete Trotter, Ken Daiker, Molly Hepler, CONDUIT
Number of Participants—30

This session is for new and prospective authors of high school and postsecondary level instructional materials for personal (micro) computers. The purpose is to encourage the development of quality courseware. Software routines will be presented which ease the development process and also take advantage of the microcomputer environment. The routines provide recommended techniques for formatting displays, generating graphics, processing student responses, and enhancing interactive style. Participants will be given the opportunity to use the routines with short exercises. Participants should be able to program in BASIC.

B-7 INTEGRATING LOGO INTO THE CURRICULUM

Joyce Tobias, Tom Lough, Steve Tipps, Education Consultants
Number of Participants—30

This workshop will provide a review of some of the LOGO programming concepts, both graphics and list processing. It is designed for people who have been using LOGO in the classroom and want to explore how LOGO can be integrated into the curriculum. Workshop objectives are: to develop a better understanding of some of the programming concepts of LOGO such as recursion, variables, interactive commands, and outputs; to develop an appreciation of the power of LOGO; to investigate how LOGO can be used to enhance different areas of the curriculum; and to understand the exploratory and problem solving opportunities for learning through the use of LOGO.



Sunday, July 28, 09:00–16:30

C-1 COLOR COMPUTER GRAPHICS AND THEIR EFFECTIVE USE

Kate Windhorst, McDonnell Douglas Astronautics
Number of Participants—32

This workshop will provide a familiarization with the use of graphics in general, understanding of the color capabilities of microcomputer CRT displays, an ability to evaluate color graphics presentation packages and an ability to design effective color graphics screen layouts. The use of color in computer-aided presentations will be discussed, with emphasis on the ways in which color can be used most effectively to create these graphics displays. Topics of discussion will include: impact of color on learning, physical characteristics of the screen, physiology of the eye, psychological perception of colors, guidelines for effective use of color, color combinations, keying, screen design, sample slides of introductory calculus lessons using color computer graphics and computer graphics package programming information. The workshop is designed for individuals with some knowledge of programming language and microcomputer usage. Some familiarity with a simple graphics package will be helpful, but not required. After a brief introduction to the available graphics package, participants will design and develop a short lesson presentation using color graphics, or they may elect to code and run a predesigned lesson using their own color scheme.

C-2 INTRODUCTION TO LISP

Arlan R. Dekock, University of Missouri, Rolla
Number of Participants—32

This one-day workshop is intended for educators who would like to teach a course in LISP—especially as it applies to solving AI problems. Participants should be moderately familiar with one of the popular procedural languages (Pascal, PL/I, BASIC). The workshop will offer hands-on opportunity to program in LISP. The topics covered will include an introduction to functional programming, list processing, rule based representation of information, and recursive programming techniques.

Pre-Conference Workshops

C-3 EVALUATION AND INSTRUCTIONAL APPLICATIONS OF COMPUTER SOFTWARE

Judith Morton, Ruth Muskopf, Education Consultants

Number of Participants—32

This workshop will acquaint participants with types of software programs available for instructional settings. Participants will learn to evaluate software programs for quality, content, objectives, and ease of use. They will learn ways to select software programs for specific instructional applications. Discussion will include how to: identify types of software programs available for use in instructional settings, programs for students to learn from, programs for students and teachers to use as tools; identify sources of commercial software and public domain software; determine what are the qualities needed in programs to be effective for instructional use and evaluate software programs using several models of evaluation, including the Microsoft Model.

C-4 NATIONAL PLANNING AND POLICY FOR COMPUTERS IN EDUCATION (Second of two days)

C-5 INTRODUCTION TO PASCAL

Don Costello, Costello and Associates; Julie Meents, State University of New Mexico

Number of Participants—30

The course presents an intense introduction to programming in Pascal. The participants will be exposed to the important syntactical aspects of the language in the context of code segments. The material will emphasize how to use Pascal and how to apply teaching strategies and better programming methods in the classroom. A presentation of the more important features of the language will be presented in a way that encourages good programming practice. Participants will obtain hands-on experience with microcomputers supporting Pascal and interactive programming techniques.

C-6 COURSEWARE DEVELOPMENT WITH A SET OF PROGRAMMING TOOLS

Same as Session B-6 (Saturday). See description above.

C-7 LIST PROCESSING APPLICATIONS IN LOGO

Tim Riordon, National Computer Training Institute

Number of Participants—30

This workshop is designed for LOGO users who have a familiarity with recursion, variables, and conditionals in the context of graphics and wish to learn about concepts such as: proce-

dures that output; embedded recursion; storing information using variables and lists; procedures for taking lists apart, sorting lists, and putting lists together. Following an introduction to these concepts, a wide variety of list processing and text projects will be briefly described. The projects will include music, poetry, codes, data bases, conversion programs, character graphics, translation programs, and story programs. Participants will select a project to complete during the workshop. This workshop is for experienced LOGO users.

C-8 APPLE II GAME-PADDLE INTERFACING WORKSHOP

Marvin L. DeJong, School of the Ozarks

Number of Participants—22

The purpose of this workshop is to illustrate how the Game I/O Port on the Apple II microcomputer can be used to make measurements. This workshop provides hands-on experience with connecting an Apple II microcomputer to the "real" world. The GAME-CONTROL INPUTS are used to make measurements of analog quantities such as resistance, temperature, and light intensity. The ANNUNCIATOR OUTPUTS are used to control other devices such as a Light-Emitting Diode (LED) or a solid-state switch. The PUSH-BUTTON INPUTS are used to make precise timing measurements, including reaction time, shutter speed, the period of a pendulum, and the acceleration of gravity. The workshop does not require any previous interfacing or electronics experience, although an understanding of such concepts as voltage, current, and resistance will make the workshop more meaningful. The participants are assumed to be computer-friendly and to have some familiarity with the BASIC programming language. This is a self-paced workshop offering hands-on experience. The workshop is interspersed with mini-lectures to explain the operation of the various features of the game-control port on the Apple II microcomputer.

Program

Monday, July 29

10:30-12:00

OPENING SESSION
CHRYSLER HALL

13:30-15:00

SESSION 131: LOGO IN THE SCHOOLS: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Novel Uses of Computers in Secondary School Classrooms: J.A.M. Howe, University of Edinburgh
LOGO in Chinese: Implications for Other Non-English Languages: Jia Lin Sun, National Taiwan College of Education; Loren Nussbaum, University of Texas

Development of K-12 Computer Science Curriculum Utilizing the LOGO Computer Language as a Primary Vehicle: J. Thomas Burnett, Charles D. Friesen, Lincoln (NE) Public Schools

LOGO and the Intelligence: P.E. Laridon, University of the Witwatersrand

SESSION 132: NATIONAL ASPECTS OF CAL: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Developing Courseware for Schools in Western Australia: N. Hoffman, Education Department of Western Australia

A Multilanguage Terminal for Computer Education: M. Periasamy, M.V. Pitke, Tata Institute of Fundamental Research

In-service Teacher Training on CAL: an Experimental Research: M. Ferraris, Istituto Tecnologie Didattiche

SESSION 133: DESIGNING COMPUTER-BASED INTERACTIVE VIDEODISK INSTRUCTION: TUTORIAL SESSION (Part One), HOLIDAY INN—NORFOLK ROOM

Kathie A. Fletcher, D.H. Hodgson, N. Hughes, K.A. Johnson, University of Maryland

SESSION 134: MICRO-PROLOG: TUTORIAL SESSION (Part One), HOLIDAY INN—HAMPTON ROADS ROOM

Richard Ennals, Imperial College

SESSION 135: EQUITY ISSUES—1: PANEL SESSION, SCOPE 1-2

Robert Caret, Towson State University; Carol Edwards, Southern Coalition for Computer Equity; Doris Lidtke, Towson State University; Marlane Lockheed, Educational Testing Service; Beth Lowd, Lexington Public School System; Frederick Weingarten, Office of Technology Assessment, U.S. Congress

SESSION 136: INTERNATIONAL ACTIVITIES OF THE TECHNICAL COMMITTEE ON EDUCATION (IFIP): PANEL SESSION, SCOPE 3-5

J. Hebenstreit, France; W. Brauer, Federal Republic of Germany; D.H. Wolbers, Netherlands; F. Lovis, United Kingdom; W. Atchison, United States; R. Lewis, United Kingdom

SESSION 137: HELPING VISUALLY IMPAIRED PEOPLE WITH COMPUTERS: PAPER SESSION, SCOPE 4-6

Teaching the Blind to Read Tactile Graphics by Computer: Waltraud Schweikhardt, Universitat Stuttgart

An Electronic Date Book for the Blind: Klaus Klopfer, University of Stuttgart

SESSION 138: INTEGRATING COMPUTERS INTO THE CURRICULUM—1: PANEL SESSION, SCOPE 7

G. Fisher, S. Marcus, B. Hunter, A. November, R. Tinker, J. Johnson, R. Nikolov

SESSION 139: COMPUTING COOPERATIVES AND RESOURCE CENTERS: PANEL PLUS PAPER SESSION, SCOPE 8

R. Carruth, Minnesota School Districts; K.S. Little, Northwest Ohio Education TV Foundation; K. Penter, Australia

The Establishment of a Regional Consortium for Educational Technology in the St. Louis, Missouri Area: J. Morton, St. Louis Regional Consortium for Education and Technology; R. Benson, Washington University

SESSION 13A: HIGH TECHNOLOGY AND EDUCATION: PAPER SESSION, MADISON—BALLROOM NORTH

Robot Awareness Programs: Frank Slaton, California State University, San Bernardino

The Implementation of High Technology in Large Urban School Districts: Patricia A. Hamilton

Classroom Behavior Record: Videodisc Development for Teaching Observation Skills: Lynn Johnson, Joan Sustik Huntley, University of Iowa

SESSION 13B: IMPLEMENTING AN INNOVATIVE COMPUTER EDUCATION PROGRAM IN LARGE SCHOOL DISTRICTS: PANEL SESSION, MADISON—JEFFERSON ROOM

Stephen M. Shuller, Bank Street College of Education

15:30-17:00

SESSION 141: LOGO—THE TEACHING EXPERIENCE: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

LOGO for Primary Grade Teachers—An In-Service Model: Jeri Cohen, Rivka Elkin, Ben-Gurion University of Negev

Phrasebooks and Boxes: Microworlds for Language: Mike Sharples, University of Edinburgh

Approaches to Teaching LOGO Programming: Anne McDougall, Monash University

Program

SESSION 142: POLICIES FOR COMPUTER ASSISTED LEARNING: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Implementing CAL in Developing Countries—Some Considerations (With Examples from Sri Lanka): Peter Chandra, University of London
A Model for the Production of Exemplar Educational Software: Three Years Experience: Lorne R. Smith, Luella Egerton, Ontario Ministry of Education
The Production of Educational Software in Finland: Jukka Rantanen, Technical Research Centre of Finland

SESSION 143: DESIGNING COMPUTER-BASED INTERACTIVE VIDEODISK INSTRUCTION: TUTORIAL SESSION (Part Two), HOLIDAY INN—NORFOLK ROOM

SESSION 144: MICRO-PROLOG: TUTORIAL SESSION (Part Two), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 145: EQUITY ISSUES—2: PANEL SESSION, SCOPE 1-2

Anita Best, University of Oregon

SESSION 146: CURRICULA DEVELOPMENT AND TEACHER EDUCATION IN INFORMATICS: PANEL SESSION, SCOPE 3-5

P. Bollerslev, Denmark; U. Bosler, Federal Republic of Germany; David Tinsley, United Kingdom

SESSION 147: EDUCATING PARENT GROUPS ON THE EDUCATIONAL POTENTIAL AND USES OF THE MICROCOMPUTER IN SCHOOLS, SCOPE 4-6

K. Penter, Australia

SESSION 148: INTEGRATING COMPUTERS INTO THE CURRICULUM—2: PANEL SESSION—CONTINUED, SCOPE 7

SESSION 149: INSTRUCTIONAL COMPUTING SUPPORT SERVICES: STATE MODELS AND REGIONAL IMPLEMENTATION STRATEGIES: PANEL SESSION, SCOPE 8

C. Klenow, P. Bird, J. Vaille

SESSION 14A: THE SECOND NATIONAL U.S. SCHOOL USES OF MICROCOMPUTERS SURVEY, MADISON—NORTH BALLROOM

Henry Jay Becker, The Johns Hopkins University

SESSION 14B: DATA ANALYSIS ON MICROCOMPUTERS: PANEL SESSION, MADISON—JEFFERSON ROOM

Nancy K. Morrison, SPSS, Inc.; Gregory Marks, University of Michigan; Carolyn White, University of Illinois; Robert Collins, Oregon State University

Tuesday, July 30

08:30-10:00

SESSION 211: TRAINING OF TEACHERS IN THE USE OF COMPUTERS: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

A Self-Study Guide in Computer Literacy for Teachers: Sally Vogel, Oak Ridge (TN) City Schools, Robert Aiken, Temple University

Bridging the Gap: Post Awareness Teacher Training: Ann Jones, Jenny Preece, John Wood, Open University

Software Tools for Curriculum Change: Implications for Teacher Education: Mike Aston, U.K. Microelectronics Education Programme; David Squires, University of London

SESSION 212: CAL AND DISTANCE LEARNING: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

A Distance Learning Pack for Training Teachers to Assess Software: Ann Jones, Jenny Preece, Open University

Computer Assisted Television: Sophie McCormick, University of London

Findings of the Homebased Computer Assisted Adult Education Project (1980-83): Rolland L. Broussard, Charles E. Blanchard, University of Southwestern Louisiana

SESSION 213: RECENT DEVELOPMENTS IN INFORMATICS EDUCATION: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Meeting Tennessee's Computer Literacy Requirement for Higher Education: Gene Bailey, Rebekah Tidwell, East Tennessee State University

Status of Computer Science Education in USA Higher Education: Thru 1982-83: John W. Hamblen, University of Missouri, Rolla

Microcomputers and Education in the United Kingdom: Towards a Framework for Research: David Smith, Morley Sage, University of Southampton

SESSION 214: MODULA-2: TUTORIAL SESSION (Part One), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 215: DESIGN, DEVELOPMENT AND USE OF CAL MATERIALS IN THE CURRICULUM: CHELSEA EXPERIENCE: TUTORIAL SESSION (Part One), SCOPE 1-2

Margaret Cox, University of London

Program

SESSION 216: FUNDING BY NSF: HISTORIC PERSPECTIVE: PANEL SESSION, SCOPE 3-5
Andrew Molnar, NSF

SESSION 217: COMPUTER SCIENCE CURRICULUM: PAPER SESSION, SCOPE 4-6

Computer Science Education for All Students: Kunio Takahashi, Sadaki Hirose, Eiichi Moriya, Kanagawa University

Software Engineering Education in Academia and Industry: Synthesis of Some Practical Experience: Pierre Robillard, Ecole Polytechnique; Marcel Dupras, Ali Mili Universite Laval

Dial-A-Diploma Down Under: R.D. Pearson, Deakin University

SESSION 218: TEACHING PROGRAMMING: PAPER SESSION, SCOPE 7

A Structured Pedagogy for Programming Courses: Frank W. Connolly, American University

Developing Program Reading Comprehension Tests for the Computer Science Classroom: Lionel E. Deimel, Jr., Lois Makoid, North Carolina State University

SESSION 219: ICMI ACTIVITIES: PANEL SESSION, SCOPE 8

Bernard Cornu, Universite Scientifique et Medicale de Grenoble

SESSION 21A: SOFTWARE-COPYRIGHT AND MARKETING ISSUES: PANEL SESSION, MADISON—BALLROOM NORTH

Leroy Finkel, San Mateo County Office of Education; Leslie Wharton, Matthews and Branscomb

SESSION 21B: VOCATIONAL EDUCATION AND TRAINING: PANEL SESSION, MADISON—JEFFERSON ROOM

P. G. Raymont, United Kingdom; B.Z. Barta, Israel; J.C. Little, United States

10:30-12:00

SESSION 221: COMPUTER EDUCATION IN SECONDARY SCHOOL—1: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Teaching Informatics in High Schools: A French Experiment: Jacques J. Arsac, Ecole Normale Supérieure

A Project to Introduce the Use of Microcomputers in the Formation of Science Teachers at the Pontifical Catholic University of Minas Gerais Brazil: Simao Pedro P. Marinho, Pontificia Universidade Catolica de Minas Gerais

"ALPHA" Project: A Pilot Project for the Integration of Information Technology in The National Secondary School Educational System in Uruguay: Jorge Grunberg, Alberto Bolana, ORT Institute of Technology

SESSION 222: CASE STUDIES IN CAL: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Interactive Modules to Teach Spreadsheet Analysis: B. Ibrahim, A. Bork, J.C. Courbon, S. Franklin, C. Kuehni, B. Levrat, University of Geneva

CAE-Computer Aided Environment Case Study: Programming System PMS that Makes Pascal Easy to Learn!: Tomasz Muldner, Ivan Tomek, Acadia University

The Computer-Assisted Research Paper: Lynn Veach Sadler, Methodist College; Wendy Tibbetts Greene, Bennett College

SESSION 223: NATIONAL INFORMATICS EDUCATIONAL SYSTEMS AND POLICIES—1: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Information Technology in Education Plans and Policies in the Netherlands: Tjeerd Plomp, B. Van Muylwijk, Twente University of Technology

The Management Information System of Higher Education in the GDR: Franz Stuchlik, Technische Hochschule Otto Von Guericke

Computer Education in Hong Kong: Douglas S. Tung, The Chinese University of Hong Kong

SESSION 224: MODULA—2: TUTORIAL SESSION (Part Two), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 225: DESIGN, DEVELOPMENT AND USE OF CAL MATERIALS IN THE CURRICULUM: CHELSEA EXPERIENCE: TUTORIAL SESSION (Part Two), SCOPE 1-2

SESSION 226: HOW TO TEACH PROGRAMMING: A COGNITIVE PERSPECTIVE: PANEL SESSION, SCOPE 3-5

Elliot Soloway, Yale University; Ben Shneiderman, University of Maryland; Arthur Luehrmann, Computer Literacy; Harold Lawson, Linkoping University; Roy Pea, Bank Street College of Education

SESSION 227: HOW SHOULD ETHICS BE TAUGHT: PANEL SESSION, SCOPE 4-6

John McLeod, Society for Computer Simulation

SESSION 228: A HIGH SCHOOL COURSE IN INFORMATION AND COMPUTER TECHNOLOGY: PANEL SESSION, SCOPE 7

William F. Atchison, University of Maryland

SESSION 229: COMPUTERS IN THE PRE-COLLEGE (AGE 14-17) MATHEMATICS CURRICULUM: PANEL SESSION, SCOPE 8

Sheldon P. Gordon, Adelphi University

SESSION 22A: PRIVACY ISSUES, MADISON—BALLROOM NORTH

P. Raymont, United Kingdom

Program

SESSION 22B: MICROCOMPUTER NETWORKS: PANEL SESSION, MADISON—JEFFERSON ROOM
Mort Lord, Corvus National Educational End-Users Group; R. Morel, Switzerland

13:30-15:00

SESSION 231: TEACHING THE TEACHERS IN POST SECONDARY EDUCATION: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

An Introductory Computer Training Course for University Personnel and Students: G.J. Roeberson, SARA

Computer Training Programme for College Teachers: Paul Kang Hoh Phua, National University of Singapore

Faculty Training and Support for Computer-Based Instruction: Jeanette Cates, Austin Community College

SESSION 232: COMPUTER MANAGED LEARNING: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Instructional Design and Course Implementation: A Case Study of an Integrated Approach Using Computers: T.R. Earle, Darling Downs Institute of Advanced Education

On the Implementation of On-Line Examination and Evaluation: B. Srinivasan, Monash University, L.S. Hsu, National University of Singapore

Development of a Classroom Management System: John H. Dustman, Indiana University Northwest

SESSION 233: NATIONAL INFORMATICS EDUCATIONAL SYSTEMS AND POLICIES—2: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Computers in the Israeli Educational System 1980—1984: Ben Zion Barta, Ministry of Education and Culture, Israel

Creating a National Computer Education Program: The Australian Beginnings: Judith H. Hammond, The New South Wales Institute of Technology

Large Scale Multi-Media Computer Courses in Belgium: Carlos R. De Backer, Antwerp University

SESSION 234: NEW DIRECTIONS IN COMPUTER EDUCATION: PANEL SESSION, HOLIDAY INN—HAMPTON ROADS ROOM

E. Schulman, Staten Island Academy; Martin Schneiderman, Educational Testing Service; Arthur Luehrmann, Computer Literacy

SESSION 235: COMPARISON OF PROBLEM SOLVING APPROACHES: PROCEDURAL NON-PROCEDURAL AND OBJECT ORIENTED: TUTORIAL SESSION (Part One) SCOPE 1-2

Harold W. Lawson, Jr., Linkoping University

SESSION 236: EDUCATIONAL COMPUTING: PAPER SESSION, SCOPE 3-5

OLLIE: An On-Line Library for Inter-Campus Exchange: Sharon M. Cubbin, Inter-Campus Service Planning, Implementation and Evaluating a Masters Program in Educational Computing: Terence R. Cannings, Stephen W. Brown, Pepperdine University
Computers in Education: A Course for Teachers: Neil Hall, Riverina C.A.E.

SESSION 237: DEBUGGING, VERIFICATION AND STRUCTURES IN PROGRAMMING: PAPER SESSION, SCOPE 4-6

Bugs in Novice Programs and Misconceptions in Novice Programmers: James C. Spohrer, Edgar Pope, Michael Lipman, Warren Sack, Scott Freiman, David Littman, Lewis Johnson, Elliot Soloway, Yale University

A Tale of One Little Program: Elliot Soloway, John Black, Yale University

Teaching Program Verification with the Help of an Interactive Support System: Pentti Hietala, University of Tampere

SESSION 238: COMPUTER SCIENCE FOR HIGH SCHOOLS: COURSE CONTENT: PANEL SESSION, SCOPE 7

Jean B. Rogers, University of Texas, Austin

SESSION 239: COMPUTERS IN THE UNDERGRADUATE (AGE 18-22) MATHEMATICS CURRICULUM: PANEL SESSION, SCOPE 8

Sheldon P. Gordon, Adelphi University

SESSION 23A: MUSEUMS' ROLE IN EDUCATION—1: PANEL SESSION, MADISON—BALLROOM NORTH

Gwen Bell, The Computer Museum; Catherine Riordan, Ontario Science Center; Oliver Strimpel, Science Museum, London; Heinz Zemanek, IBM and Deutsches Museum; Ann Lewin, Capitol Children's Museum

SESSION 23B: INTERNATIONAL NETWORKING: PANEL SESSION, MADISON—JEFFERSON ROOM

Ira Fuch, Dan Oberst, EDUCOM

15:30-17:00

SESSION 241: COMPUTER EDUCATION IN SECONDARY SCHOOL—2: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Computers in Education at All Levels and for All Departments at the Senior Technical School MTS Helmond: A.M.W. Van Der Linden, Middelbare Technische School

Evaluating and Improving the Informatics Education in Secondary Schools by Means of Programming Contests: Andreas Schwill, Universitat Dortmund

An Experiment in Introducing the Basic Concepts of Informatics: G. Olimpo, D. Persico, L. Sarti, M. Tavella, Istituto Tecnologie Didattiche

Program

SESSION 242: EVALUATION OF CAL EXPERIENCE: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Toward a Self-Paced Learning Support System: Fumi-yuki Terada, Ken Hirose, Waseda University
The Coventry Computer Based Learning Project 1982-1983: Margaret Bell, Coventry CBL Unit
The Relationship Among EDP Instructor, Course Evaluation, and the Use of Interactive Computer Assisted Instruction: An Empirical Investigation: Avi Rushinek, Sara F. Rushinek, Joel Stutz, University of Miami

SESSION 243: NATIONAL INFORMATICS EDUCATIONAL SYSTEMS AND POLICIES—3: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Computer Education in Ecuador: An Economic, Sociological, and Political Analysis: Janet Palmer, Western Kentucky University
University Education in Computer Science and Technology: The New Iranian Plan: Behrooz Parhami, Sharif University of Technology
The National Informatics Up-Date Programme for the Netherlands: Consequences for the Government: A. Bongers, Government Training Institute, The Netherlands

SESSION 244: MODEL SYLLABUS FOR LITERACY FOR ALL TEACHERS: PANEL SESSION, HOLIDAY INN—HAMPTON ROADS ROOM

Rhys Gwyn, United Kingdom; Peter Gorny, Federal Republic of Germany; Tom Van Weert, The Netherlands

SESSION 245: COMPARISON OF PROBLEM SOLVING APPROACHES: PROCEDURAL, NON-PROCEDURAL AND OBJECT ORIENTED: TUTORIAL SESSION (Part Two), SCOPE 1-2

SESSION 246: SPECIAL PROJECTS IN COMPUTING EDUCATION: BANK STREET SCHOOL OF EDUCATION: PANEL SESSION, SCOPE 3-5

Stephen M. Shuller, Bank Street School of Education

SESSION 247: MAKING STUDENTS AWARE OF SOCIAL AND ETHICAL ISSUES OF COMPUTER USE: PANEL SESSION, SCOPE 4-6

J. Michael Dunlap, Willamette University; Linda Roberts, Office of Technology Assessment; Leroy Finkel, San Mateo County Office of Education

SESSION 248: THE ADVANCED PLACEMENT COMPUTER SCIENCE PROGRAM: PANEL SESSION, SCOPE 7

David C. Rine, Western Illinois University

SESSION 249: DISCRETE MATHEMATICS: PANEL SESSION, SCOPE 8

Jerry Isaacs, Carroll College; Martha Siegal, Towson State University

SESSION 24A: MUSEUMS' ROLE IN EDUCATION—2: PANEL SESSION—CONTINUED, MADISON—BALLROOM NORTH

SESSION 24B: LARGE-SCALE IMPLEMENTATION PROJECTS, MADISON—JEFFERSON ROOM

Randy Bennett, Brian Stecher, Educational Testing Service

Wednesday, July 31

08:30-10:00

SESSION 311: COMPUTER LITERACY PROGRAMS: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Designing a Middle School Computer Literacy Curriculum: An Integrated Approach: Shirl S. Schiffman, University of Virginia; Dorothy J. Hulett, Walker Middle School

A Model to Develop Computer Literacy in Education: Ralph Stuckman, Western Ohio Branch Campus

A Computer Literacy Course for Faculty: Anthony Z. Cole, Bob Riser, East Tennessee State University

SESSION 312: APPLICATIONS OF CAL: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

A First Step in Computer-Based Learning of Molecular Embryology at the University and First Achievements: Jacques Fiszer, Nicole Bernard-Daugeras, Colette Favard-Sereno, Michel Lauthier, Universities of Paris VI and Paris VII

Improving Basic Skills in English with C.A.I. Techniques: Enrico Borello, University of Turin

Experience in Time Domain Interactive Educational Processes: Georgi M. Dimirovski, University Kiril and Metodii Kodaly

Computers and the Classroom: Colin Wells, University of Reading

SESSION 313: TOPICS ON COMPUTERS IN EDUCATION—1: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Computers in Danish Elementary and Youth Education: Peter Bollerslev

Computing in Second-Level Education in Ireland—A Case Study: Brendan Mackey, Computer Education Society of Ireland

To Comment on DPS 8/52 Honeywell Time Sharing System and to Introduce The Situation of Several Jobs: Shen Wei-Jun, Xi'an Jiaotong University

SESSION 314: TEACHING AND USING LOGO IN THE EDUCATION OF 5-12 YEAR OLD CHILDREN: TUTORIAL SESSION (Part One), HOLIDAY INN—HAMPTON ROADS ROOM

Patricia F. Campell, Shirley S. Schwartz, June L. Wright, University of Maryland

Program

SESSION 328: A HUMANITIES AND SOCIAL SCIENCE ORIENTED CURRICULUM: PANEL SESSION, SCOPE 7
Diana Woodward, Drexel University

SESSION 329: COMPUTERIZATION OF CAMPUSES: PANEL SESSION, SCOPE 8
Jesse Poore, Georgia Institute of Technology

SESSION 32A: USING COMPUTERS TO TEACH CRITICAL THINKING SKILLS AND FITTING CRITICAL THINKING INTO THE CURRICULUM—2: PANEL SESSION, MADISON—BALLROOM NORTH

SESSION 32B: MAINTAINING INSTRUCTIONAL INTEGRITY WITH QUALITY SOFTWARE: PANEL SESSION, MADISON—JEFFERSON ROOM

Larry Christensen, Brigham Young University;
David Weaver, Northwest Regional Educational Laboratory; George Gerhold, Washington Computer Service; Alfred Bork, University of California, Irvine

Thursday, August 1

08:30–10:00

SESSION 411: COMPUTER AID FOR CLASSROOM TEACHING FOR CHILDREN: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

A Microcomputer Model Classroom: Howard A. Peelle, University of Massachusetts
Handling Information in the Classroom; A Novel Approach to the Use of Data Bases in Years 4–9: Toni Downes, Sydney Catholic Education Office
TPSA: Teaching of Thinking In A Computer Environment: Joseph Regev, Ben-Gurion University of the Negev

SESSION 412: AUTHORING SYSTEMS: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Expert Systems: Towards CAI of the Future?: Mar-yse Quere, Centre de Recherche en Informatique de Nancy
MUMEDALA—An Approach to Multi-Media Authoring: Philip G. Barker, Teesside Polytechnic
Perceived Difficulties in Learning an Authoring Language System: Clifton S. Harris, University of Texas, Dallas

SESSION 413: FUNDAMENTAL PROBLEMS IN COMPUTER RELATED EDUCATION: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

Extrapolation Theory of Learning and Computer-Based Education: B. Lalov, Higher Institute of Mechanical and Electrical Engineering
Course Integration: D. Woodhouse, La Trobe University
Addressing Fundamental Problems in Computer Related Education and Training: Harold W. Lawson, Jr., Linkoping University

SESSION 414: PROLOG: TUTORIAL SESSION (Part One), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 415: DESIGN, DEVELOPMENT AND USE OF CAL MATERIALS IN THE CURRICULUM: THE FRENCH EXPERIENCE: TUTORIAL SESSION (Part One), Scope 1–2

Daniel Gras, Ministere de l'Education, France

SESSION 416: WORD PROCESSING IN PRE-COLLEGE EDUCATION: PANEL SESSION, SCOPE 3–5

Cathy Conlin, Nancy Olsen, M. Goldfarb

SESSION 417: COMPUTER METHODOLOGY IN TEACHING MIS: PAPER SESSION, SCOPE 4–6

Teaching Analytical and Design Skills to Business Information Systems Students Given Tight Constraints on Time and Resources: Judith D. Wilson, University of Cincinnati

Teaching Business Computing: A Top Down Approach from Down Under: Kate Behan, Swinburne Institute

Student Projects for a Graduate Course in MIS Software Concepts: Murray R. Berkowitz, University of Dallas

SESSION 418: SHAPING THE FUTURE OF COMPUTERS IN EDUCATION: A DEBATE: PANEL SESSION, SCOPE 7

M.D. Roblyer, Florida A&M University; Dan Watt, Consultant; Robert Sardello, Dallas Institute for the Humanities; Alfred Bork, University of California, Irvine; Hubert Dreyfus, University of California, Berkeley

SESSION 419: ETS COMPUTER LITERACY PROJECT: PANEL SESSION, SCOPE 8

Steven Gilbert, Educational Testing Service

SESSION 41A: LOGO IN THE UNITED STATES: ISSUES AND USES: PANEL SESSION, MADISON—BALLROOM NORTH

Dennis O. Harper, University of California, Santa Barbara; David Thornburg, Stanford University; Steve Louie, NACCIS

SESSION 41B: CURRICULA IN COMPUTING FOR POST-SECONDARY INSTITUTIONS: PANEL SESSION, MADISON—JEFFERSON ROOM

Program

10:30-12:00

SESSION 421: EXPERT SYSTEMS AND CAL: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Mindpad: A System to Support Knowledge Acquisition During Problem-Solving: M.J. Coombs, University of Strathclyde

Intelligent CAL System Based on Teaching Strategy and Learner Model: Setsuko Otsuki, Akira Takeuchi, Kyushu University

Expert System Components for Intelligent Computer Aided Instruction: John M. Morris, Measurement Concept Corp.

SESSION 422: MATHEMATICS AND SCIENCE EDUCATION: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Programming in Mathematics Instruction: An Essential Component in the Development of Reasoning Skills: Karen L. Jones, Charles E. Lamb, the University of Texas, Austin

Microcomputer Diagnostic Testing for Effective Management in Elementary Mathematics Classrooms: Robert W. Janke, Peter J. Pilkey, Strongsville (OH) City Schools

Computer Based Learning Units for Science and Math for Secondary Schools: Alfred Bork, Augusto Chiocciariello, Werner Feibel, Stephen Franklin, Barry Kurtz, David Trowbridge, Ruth Von Blum, University of California, Irvine

SESSION 423: COMPUTERS IN EDUCATIONAL RESEARCH: PAPER SESSION, HOLIDAY INN—NORFOLK ROOM

The LOGO Language as a Tool in Educational Research: Tony Adams, Royal Melbourne Institute of Technology

Cognitive and Visual Elements of Using a Computer for Instruction: Morrison F. Hammond, MacQuarie University

Theoretical Influences of the Design and Implementation of Computer-Mediated Learning: D.F. Sewell, R.D. Ward, D. Rotheray, Hull University

SESSION 424: PROLOG: TUTORIAL SESSION (Part Two), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 425: DESIGN, DEVELOPMENT AND USE OF CAL MATERIALS IN THE CURRICULUM: THE FRENCH EXPERIENCE: TUTORIAL SESSION (Part Two), SCOPE 1-2

SESSION 426: COMPUTERS AND WRITING: VARIATIONS ON A THEME: PANEL SESSION, SCOPE 3-5

Stephen Marcus, University of California, Santa Barbara; Valerie Arms, Drexel University

SESSION 427: FACILITIES FOR COMPUTER EDUCATION: PAPER SESSION, SCOPE 4-6

The Simultaneous Control by Microcomputer of Several Mechanical Systems Using a Single Fibre Optics Link: Emma E. Hellawell, Sarah D. Hill, C.D. Cleverley, Leeds Girls' High School; E.W. Reed, Leeds Polytechnic

Faculty Workstations: A New Kind of Computing: Donald D. Sharp, Jr., Gerald A. Knezek, North Texas State University

Computer Science Education Based on Micro-Operations: Ken Ishikawa, Nobuo Baba, Utsunomiya University

SESSION 428: GRAPHICS IN ENGINEERING AND ARCHITECTURE EDUCATION: PAPER SESSION, SCOPE 7

A Comprehensive Computing System for Architectural Education: Omer Akin, Ulrich Flemming, Robert Woodbury, Carnegie-Mellon University

Engineering Graphics + Computer Graphics = Computational Engineering Graphics?: Harold P. Santo, Universidade Tecnica de Lisboa

Computer Graphics and Teaching Descriptive Geometry: Manjula B. Waldron, Richard I. Hang, Ohio State University

SESSION 429: SO YOUR DISTRICT HAS MANDATED COMPUTER LITERACY—WHAT DO YOU DO NOW?: PANEL SESSION, SCOPE 8

Tony Jongejan, Western Washington University; Sheila Cory, Chapel Hill-Carrboro City Schools; Vicki Smith, Texas Educational Agency

SESSION 42A: LOGO ON THE SIX CONTINENTS: ISSUES AND USES—1: PANEL SESSION, MADISON—BALLROOM NORTH

M. Goto, Japan; R. Noss, United Kingdom; I. Ngosso, Cameroon

SESSION 42B: COMPUTER SYSTEMS FOR SMALL POST-SECONDARY INSTITUTIONS: PANEL SESSION, MADISON—JEFFERSON ROOM

Waldo Roth, Taylor University; Robert Rennert, Kenyon College

13:30-15:00

SESSION 431: COMPUTER EDUCATION IN ELEMENTARY SCHOOL: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Children in Control of Computers: Richard Noss, Bill Tagg, Advisory Unit for Computer Based Education

A Cognitive-Curricular Model for Teaching Computer Programming to Children: Nachmias Rafi, Mioduser David, Chen David, Tel-Aviv University

Computers in Schools Plus: The Benefits of Extended Opportunities: Elizabeth F. Schwartz, School District of Ladue (MO)

Program

SESSION 432: NETWORKS IN CAL: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Structuring Learning Networks: The Possibilities for Networked Software: Jo Ann Wilton, Ontario Institute for Studies in Education

Alabama Educational Computing Research and Development Network: James D. Burney, University of North Alabama, Bernard J. Schroer, William Teoh, University of Alabama in Huntsville

Electronic Conferencing and Faculty/Student Contact Time: Jane Sullivan, Estelle Brown, Glassboro State College

SESSION 433: AUTHORING SYSTEMS: TUTORIAL SESSION (Part One), HOLIDAY INN—NORFOLK ROOM

Alain Daguise, France

SESSION 434: INTERACTIVE ON-LINE DESIGN OF EDUCATIONAL SOFTWARE IN THE SMALLTALK-80 ENVIRONMENT: TUTORIAL SESSION (Part One), HOLIDAY INN—HAMPTON ROADS ROOM

William Finzer, San Francisco State University; Laura Gould, Xerox

SESSION 435: THE IFIP/BCS CURRICULUM FOR INFORMATION SYSTEM DESIGN, SCOPE 1-2

R. Buckingham, United Kingdom

SESSION 436: USING COMPUTERS TO TEACH LITERATURE: PANEL SESSION, SCOPE 3-5

Nancy M. Ide, Vassar College; Frank Borchert, Duke University; Bates L. Hoffer, Trinity University; Lance Miller, IBM

SESSION 437: COMPUTERS IN TEACHING HIGHER MATHEMATICS: PAPER SESSION, SCOPE 4-6

An Experiment in Interactive Computerized Teaching of a Topic from Advanced Calculus: Bev Marshman, University of Waterloo

L.E.G.O.: An Interactive Computer Graphics System for Teaching Geometry: Norma Fuller, Przemyslaw Prusinkiewicz, Gerard Rambally, University of Regina

Trig—An Intelligent Drill-and-Practice System for Introductory Trigonometry: P. Pidcock, University of Birmingham

SESSION 438: PHYSICS AND LOGIC: PAPER SESSION, SCOPE 7

A Certain Experimental Computer Aided Course of Logic in Poland: Marcin Mostowski, Zinaida Trybulec, the Warsaw University

Solving of General Problems and Problem-Classes by Operators for Abstract Datatypes and Packets for Symbolic Data Handling: Leo H. Klingen, Helmholtz Gymnasium

Computer Dialogs for Developing Concepts of Physics: David Trowbridge, Augusto Chiocciariello, University of California, Irvine

SESSION 439: THE ROLE OF THE SCHOOL ADMINISTRATOR IN IMPLEMENTING COMPUTER SCIENCE COURSES INTO THE PRE-COLLEGE CURRICULUM: PANEL SESSION, SCOPE 8

Ted Mims, Harriet Taylor, Louisiana State University; George Culp, Jean Rogers, University of Texas, Austin; Raymond Simon, Conway Public Schools

SESSION 43A: LOGO ON THE SIX CONTINENTS: ISSUES AND USES—2: PANEL SESSION, MADISON—BALLROOM NORTH

A. McDougall, Australia; H.C. Reggini, Argentina; W. Higginson, Canada

SESSION 43B: SERVICE COURSES IN SMALL POST-SECONDARY INSTITUTIONS: PANEL SESSION, MADISON—JEFFERSON ROOM

John Beidler, University of Scranton

15:30-17:00

SESSION 441: MAN/MACHINE INTERFACES IN CAL: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Face Robot for Pacemaking in Classroom Work: Keizo Nagaoka, Kobe University; Issei Shiohara, Shiohara Girls' Senior High School

Hands-On Measures For Hands-on Learning: Gary Marchionini, University of Maryland

Low Cost Hand-Held Computers in Classroom Instruction: Charles E. Barb, Jr., University of Oklahoma

SESSION 442: SOME EDUCATION PROGRAMS IN EUROPE: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Teaching Informatics at Various Levels in General Education—A Survey of Research and Teaching in the Federal Republic of Germany: Ulrich Bosler, IPN—Institute for Science Education

A Town in Denmark: Emil Pedersen, Niels Tovugaard, City of Odense

The Swedish "Computer in School"—COMPIS—Project: Hans Svensson, Osterangskolan Kristianstad, Leif Wettstam, Gymnasieskolan Mark

SESSION 443: AUTHORING SYSTEMS: TUTORIAL SESSION (Part Two), HOLIDAY INN—NORFOLK ROOM

SESSION 444: INTERACTIVE ON-LINE DESIGN OF EDUCATIONAL SOFTWARE IN THE SMALLTALK-80 ENVIRONMENT: TUTORIAL SESSION (Part Two), HOLIDAY INN—HAMPTON ROADS ROOM

SESSION 445: IMPLEMENTATIONS OF CAMPUS-WIDE COMPUTER LITERACY PROGRAMS: PANEL SESSION, SCOPE 1-2

G.G. Balazs, Virginia Military Institute; Anthony Halaris, Iona College; P. Adman, University of Hull

Program

SESSION 446: WHAT HAS CAI DONE FOR THE HUMANITIES?: PANEL SESSION, SCOPE 3-5

Joseph Raben, Paradigm Press; Glyn Holmes, University of Western Ontario; Donald Ross, Jr., University of Minnesota; Michael Arenson, University of Delaware

SESSION 447: SOFTWARE TOOLS: PAPER SESSION, SCOPE 4-6

Can We Consciously Train Excellent Programming?: Peter Molzberger, HSBW—University of the German Federal Armed Forces

Software Tools in Computer Engineering Education: M. Caboara, E.I. Giannotti, Università di Genova

Teaching High Level Programming Concepts: Experience and Hindsight: A.M. Burton, H.T. Smith, R.B. Henry, University of Nottingham

SESSION 448: SMALL COMPUTERS IN THE CLASSROOM: SELECTING HARDWARE AND LOCATING SOFTWARE, SCOPE 7

Lawrence A. Tomei, Montgomery, Alabama

SESSION 449: USING COMPUTERS TO IMPROVE THE ADMINISTRATION OF ELEMENTARY AND SECONDARY SCHOOLS: PANEL SESSION, SCOPE 8

Ted Mims, Louisiana State University; Richard Dennis, University of Illinois; James Hecht, Hinsdale Township School District; Phyllis Simon, Little Rock Public Schools; Raymond Simon, Conway Public Schools; Nolan Estes, University of Texas

SESSION 44A: LOGO AND THE WORLD OF EDUCATION: PANEL SESSION, MADISON—BALLROOM NORTH

Harold Abelson, Seymour Papert, Massachusetts Institute of Technology; Brian Harvey, University of California, Berkeley

SESSION 44B: EXAMINING THE RETRAINING STRATEGY FOR OBTAINING COMPUTER FACULTY: PANEL SESSION, MADISON—JEFFERSON ROOM

William Mitchell, Janet Hartman, University of Evansville; R. Dubinsky, Clarkson College

Friday, August 2

08:30-10:00

SESSION 511: PORTABILITY AND INTERFACES: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Portability of Computer Based Learning Materials Across Machines and Across Natural Languages: Stephen D. Franklin, University of California, Irvine; Bernard C. Levrat, University of Geneva

Quest in the Learning Environment: Computer Assisted Information Handling as a Tool for Learning and Curriculum Development: Diana Freeman, John Levett, The Advisory Unit for Computer Based Education

Principles for Interfaces Between Young Children and Computers: Csaba J. Egyhazy, Barbara Hutson, Virginia Tech

SESSION 512: ADMINISTRATIVE APPLICATIONS OF COMPUTING: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

What's in a Name—SCAMP?: Carlo Tomasso, Scottish Microelectronic Development Programme
A Systematic Management Strategy for Integrating Technology into the Workplace: Renee C. Barrett, Instructional Systems Development, Shirley J. McCann, Trinity College

Computer-Generated, Graphical and Statistical Characterization of Administrative Data: Spatially-Oriented Student Enrollment Trends: Alan D. Smith, Eastern Kentucky University

SESSION 513: COMPUTER GRAPHICS: AN AID IN TEACHING SECONDARY SCHOOL ADVANCED ALGEBRA, TRIGONOMETRY AND TRANSFORMATIONAL GEOMETRY: TUTORIAL SESSION (Part One), HOLIDAY INN—NORFOLK ROOM

Edwin D. Andersen

SESSION 514: OPEN LEARNING, HOLIDAY INN—HAMPTON ROADS ROOM

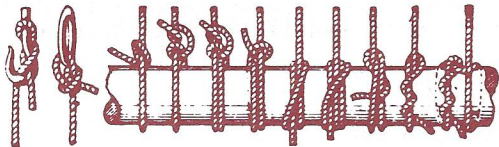
F. Lovis, Open University

SESSION 515: TRAINING AND EDUCATION OF THE END USER: PANEL SESSION, SCOPE 1-2

F. Lindhout, The Netherlands

SESSION 516: COMPUTER-BASED INSTRUCTION IN MUSIC EDUCATION: PANEL SESSION, SCOPE 3-5

Michael A. Arenson, University of Delaware



Program

SESSION 517: ACCOUNTING FOR SOCIOLOGICAL AND PERSONAL DIFFERENCES: PAPER SESSION, SCOPE 4-6

Predicting Academic Success in Computer Science: W.S. Curran, Janet Melancon, Loyola University

Computing in Social Context: V.A. Clarke, Deakin University

Software for Girls: A Sexist Solution? Twila Slesnick, Classroom Computer Learning

SESSION 518: FOURTH-GENERATION LANGUAGES IN THE CLASSROOM: PANEL SESSION, SCOPE 7

Boulton Miller, Southern Illinois University; Wendell O. Jones, United States Military Academy; A. Milton Jenkins, Indiana University; Anita Kollenbauer, University of Stockholm

SESSION 519: EDUCATIONAL TECHNOLOGIES DATA BASE PROJECT: PANEL SESSION, SCOPE 8

Mary Grace Smith, Inabeth Miller, Harvard University

SESSION 51A: HIGH PERFORMANCE COMPUTER GRAPHICS IN THE CLASSROOM, MADISON—BALLROOM NORTH

Mark Brown, Brown University

SESSION 51B: EFFECTIVE USE OF THE COMPUTER IN SCIENCE EDUCATION: PANEL SESSION, MADISON—JEFFERSON ROOM

G. Strack, United Kingdom; H. Heikkinen, University of Maryland

10:30-12:00

SESSION 521: MATHEMATICS EDUCATION WITH GIMMICKS: PAPER SESSION, HOLIDAY INN—WEST BALLROOM

Teaching Mathematical Story Problems: Peter Schmidt, Universitat Bonn

Finite State Machines: An Introductory Enrichment Experience for Gifted Children: Harold Reiter, University of Maryland, Judie Mentner, Montgomery (MD) County Public Schools

A Versatile Environment: Iconographic Programming and the Creation of Mathematical Games: Marlene Kliman, Department of Artificial Intelligence

SESSION 522: TOPICS ON COMPUTERS IN EDUCATION—3: PAPER SESSION, HOLIDAY INN—EAST BALLROOM

Computer Assisted Testing by Questions and Answers: J. Chastenet De Gery, S. Hocquenghem, Conservatoire National des Arts et Metiers, B. Dumont, D. LaCombe, G. Sol, Universite Paris

The Potential of Microcomputers in the Education of Gifted Children: M.M. Malan, Potchefstroom University For Christian Higher Education

CAL and Weak Students in Math: Kim Foss Hansen, Danish Institute of Educational Research

SESSION 523: COMPUTER GRAPHICS: AN AID IN TEACHING SECONDARY SCHOOL ADVANCED ALGEBRA, TRIGONOMETRY AND TRANSFORMATIONAL GEOMETRY: TUTORIAL SESSION (Part Two), HOLIDAY INN—NORFOLK ROOM

SESSION 524: CONTINUING EDUCATION, HOLIDAY INN—HAMPTON ROADS ROOM

Frank Lovis, Open University

SESSION 525: CAREERS IN COMPUTING: PANEL SESSION, SCOPE 1-2

Joyce Currie Little, Towson State University; James Poirot, North Texas State University

SESSION 526: FROM COMPUTER LITERACY TO INFORMATION LITERACY?: PANEL SESSION, SCOPE 3-5

Bram Van Weering, Ard Hartsuijker, Tineke Zeebergen, The Netherlands

SESSION 527: COMPUTERS IN ENGINEERING EDUCATION: PAPER SESSION, SCOPE 4-6

MacIntosh: Rethinking Computer Education for Engineering Students: Andrew U. Frank, University of Maine at Orono

A Cost-Effective Use of Limited Computing Resources in Teaching Engineering Design: J. R. Greene, University of Cape Town

The Role of Computing in Engineering Education: William J. Rasdorf, North Carolina State University; Olaf O. Storaasli, NASA Langley Research Center

SESSION 528: ISSUES AND PLANNING FOR EFFECTIVE COMPUTER USE: PANEL SESSION, SCOPE 7

Glenn Fisher, Don Rawitsch, Bev Hunter

SESSION 529: YOUNG CHILDREN AND COMPUTERS: PANEL SESSION, SCOPE 8

Sandra K. Morris, Marion C. Hyson, Cynthia L. Paris, Dene Klinzing, University of Delaware; Marilyn Church, June L. Wright, Shirley S. Schwartz, University of Maryland

SESSION 52A: COMPUTER GRAPHICS AND THE ARTS: PANEL SESSION, MADISON—BALLROOM NORTH

Richard Dean, Northumberland Park School

SESSION 52B: COMPUTER ASSISTED READING AND MATHEMATICS PROGRAMS: PANEL SESSION, MADISON—JEFFERSON ROOM

Debra J. Glowinski, Buckingham County Schools; Sheila Cory, Chapel Hill—Carrboro City Schools

13:00-15:00

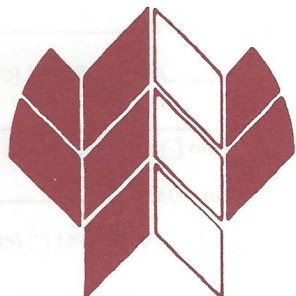
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CHRYSLER HALL**

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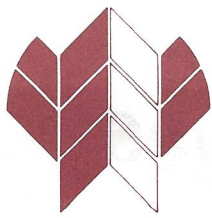
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- Complete each part below in detail.

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(If applicable)

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- Select type of room desired; fill in arrival and departure dates.
- If you need to make a supplemental list for additional rooms, you must use the same format.

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Twin (2 persons, 2 beds)

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2 _____

Check one: Single Double Twin

Arr. Date _____ Dep. Date _____

Arrival Time _____ AM PM (check one)

ROOM NO. 2 _____
1 _____
2 _____

Check one: Single Double Twin

Arr. Date _____ Dep. Date _____

Arrival Time _____ AM PM (check one)

HOTEL PREFERENCE

INSTRUCTIONS

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1. Best Western Center Inn	\$46	\$55
2. Holiday Inn Waterside	50	58
3. Hotel Madison	57	68
4. Omni International*	68 (city view)	76
	80 (harbor view)	86
5. Sheraton Military Circle	62	72
6. Old Dominion University**	Dormitory	11.50 (a)
	Apartment	13.50 (b)

*Headquarters Hotel

** (a) Rate is *per person*, twin accommodations only. Please indicate name of individual to share room; if name is not given, a roommate will be assigned by the Housing Bureau. (If you desire a "non-smoking" roommate, please indicate on the bottom of the form). Rate indicated includes linens and 1 bath per 2 rooms.

(b) Same as (a), but with 1½ baths per 2 rooms.

- If you have not received an acknowledgement within 6 weeks from the mailing date of your form, please contact the Housing Bureau at the address below.
- One night's advance deposit may be required. Please check hotel confirmation for their requirements. Also, please check hotel confirmation for refund policies.
- Reservations *will be held only until 6pm* unless special arrangements are made directly with hotel.
- Telephone reservations will not be accepted.
- All changes and cancellations should be made directly with the hotel.
- 7% Sales tax is not included in quoted rates.

Please write full name of hotel [and "a" or "b" if requesting Old Dominion University]]

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WCCE '85 HOUSING MAP

NORFOLK, VA



1. Best Western Center Inn
2. Holiday Inn Waterside
3. Hotel Madison
4. Omni International*
5. Sheraton Military Circle
6. Old Dominion University

* Headquarters Hotel

----- = TROLLEY ROUTE SERVING DOWNTOWN AREA

P = PUBLIC PARKING



WCCE/85

JULY 29 - AUGUST 2, 1985

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(Please circle the day you plan to attend)

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CHILDREN UNDER 14 NOT ADMITTED

Cancellations and changes must be made in writing and received by July 12, 1985

WCCE/85 WORKSHOP REGISTRATION

Table with 4 rows: FRIDAY, JULY 26 (A-1 to A-4), SATURDAY, JULY 27 (B-1 to B-7), SUNDAY, JULY 28 (C-1 to C-7), TWO DAY WORKSHOP: BC-4. Includes fees and total columns.

Registration for workshops must be completed by JUNE 10, 1985

NO CANCELLATIONS OF WORKSHOPS WILL BE ACCEPTED.

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The Role of Programming in Teaching Informatics

(Proc. of the IFIP TC3 Working Conf. on Teaching Programming, Paris, France, 7-9 May 1984)

Griffiths, M. and E.D. Tagg (editors)

1985 x + 212 p.
US \$38.50/Dfl. 100.00. ISBN 0-444-87664-2

Informatics Education for all Students at University Level

(Proc. of the IFIP WG 3.2 Working Conf., Delft, The Netherlands, 27 June-1 July 1983)

Lovis, F.B. and E.D. Tagg (editors)

1984 xii + 226 p.
US \$34.00/Dfl. 80.00. ISBN 0-444-86807-0

Informatics and Teacher Training

(Proc. of the IFIP WG 3.1 Working Conf., Birmingham, UK, 16-20 July 1984)

Lovis, F.B. and E.D. Tagg (editors)

1984 x + 254 p.
US \$31.50/Dfl. 85.00. ISBN 0-444-87639-1

Informatics in Elementary Education

(Proc. of the IFIP WG 3.1 Working Conf., Malente, near Kiel, FRG, 25-29 July 1983)

Tinsley, J.D. and E.D. Tagg (editors)

1984 x + 220 p.
US \$27.75/Dfl. 75.00. ISBN 0-444-86811-9

The Impact of Informatics on Vocational and Continuing Education

(Proc. of the IFIP WG 3.4 Working Conf., Jerusalem, Israel, 14-18 May 1984)

Barta, B.Z. and B.H. Raab (editors)

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