



# CHANNEL

**Computers and Information Systems Newsletter**  
**Graduate School of Management University of California, Los Angeles**  
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## Colloquium Series

The Winter Quarter marked the inauguration of the Computers & Information Systems (C.& I.S.) Colloquium Series which consists of a regular schedule of invited speakers who present current research and developments in computers and information systems.

Our first Colloquium speaker was **Barry Boehm**, Director of Software Research and Technology for the TRW Systems Group. The title of Dr. Boehm's talk was "Software Productivity and Cost Estimation." The talk covered three major areas relating to software productivity; (1) a definition of the term software productivity, (2) the factors that influence software productivity, and (3) methods of estimating software productivity and costs. Dr. Boehm reviewed the work of several organizations which have developed methods for projecting software development costs.

**Dr. Richard O. Mason**, Associate Professor at UCLA's Graduate School of Management (GSM) presented the second Colloquium entitled "Strategic Assumption Surfacing and Testing." This presentation described a method for identifying the underlying assumptions of a strategy or policy and for prioritizing those assumptions according to importance and certainty. These results are then used to specify information requirements for business intelligence.

Our next Colloquium speaker was **Dr. Rob Kling**, Assistant Professor of the Department of Information and Computer Science and the Public Policy Research Organization at the University of California, Irvine. His presentation, entitled "The Roles of Automated Information Systems in Complex Organizations: Instruments of Rationality and/or Bureaucratic Politics," covered the data collected on the automated information systems of 42 American local governments. The discussion considered the roles of these automated information systems in influencing the decisions made by elected officials and government administrators.

**Dr. Paul Gray**, Professor of Decision Sciences at the University of Southern California, and currently a Visiting Scholar here at the Graduate School of Management, delivered the next Colloquium entitled, "Substituting Communications for Transportation in an Information Systems Age." Dr. Gray presented the results of a study of the costs and benefits of "telecommuting." The basic premise of that study is that a change in urban work patterns will not occur unless technological substitutes for transportation can be shown to be both economical and effective.

The final Colloquium of the Winter Quarter was delivered by **Dr. Eric D. Carlson** from the IBM Research Division at San Jose. The title of this Colloquium was

"Trends in Application Development Languages." Dr. Carlson's presentation reviewed various new languages which have demonstrated improved productivity in application development compared to existing languages. For the purpose of discussion, he grouped these application development languages into five types; non-procedural requirements statement languages, graphical languages, languages for invoking reusable modules, languages for classes of applications, and algebraic languages.

The C.& I.S. Colloquium Series will continue during the Spring Quarter. The Colloquium will meet on alternate Thursdays beginning on April 5 at 4:30 p.m. in room 4323 of the Graduate School of Management. The other dates for the Spring Colloquia are April 19, May 3, May 17 and June 14. Special seminars or lectures may be scheduled at other times during the Spring Quarter. Announcements for the Colloquium Series are circulated prior to each presentation and contain specific information about the speaker and the topic to be covered. All interested members of the public are invited to attend. If you wish to be included on the Colloquium mailing list, please send your name and address to Susan Corley, Room 5350A, Graduate School of Management, UCLA, Los Angeles, CA 90024.

Support for the Colloquium Series is provided by the Computers & Information Systems Associates and the Office of the Dean of the Graduate School of Management.

The Colloquium Series evolved from a more informal seminar series which met on an ad hoc basis during recent years until last December. Professors Bennet Lientz and Seev Neumann of the Computers and Information Systems faculty made presentations during the Fall Quarter (1978). Professor Lientz's seminar was entitled "Administrative Computing Under Severe Budget Constraints," and Professor Neumann's talk dealt with "User Evaluation of Information Characteristics."

At this point, it is appropriate to recognize those speakers who made contributions during the 1976-78 academic years. Those seminar speakers included visitors Jim Oma (Burroughs Corporation), Ken Kraemer (U.C. Irvine), Steve Alter (University of Southern California), Joseph Becker (Becker and Hayes, Inc.), Eduardo Fernandez (IBM), and Peter Chen (then with MIT, now a C.& I.S. faculty member). GSM faculty members giving seminars included C.& I.S. faculty R. Clay Sprowls, Richard O. Mason, Bennet Lientz and Ken Siler, and Behavioral Science faculty James Taylor and Charles O'Reilly. C.& I.S. doctoral students giving talks included Gerry Tompkins, Kweku Ewusi-Mensah and Kurt Fischer. □

## Focus on C.& I.S. Associates

With this issue, the newsletter will begin to report on the backgrounds and interests of some of the key members of the C.& I.S. Associates.



L.E. Leeburg



D.J. Peterson

**DR. LEWIS E. LEEBURG** was instrumental in the formation of the C.& I.S. Associates, a group of data processing executives who are committed to supporting the Computers and Information Systems program at UCLA's Graduate School of Management (GSM). He is currently serving as the first Chairman of the Associates for the 1978-79 academic year.

Dr. Leeburg's leadership in the Associates program is just the latest example of a lifelong working relationship with academic institutions and with UCLA in particular. He attended UCLA and majored in Business Administration as an undergraduate. He led a very active undergraduate life participating in many campus activities; and, in his senior year, was elected UCLA Student Body President. In recognition of his many achievements, he was chosen to represent his class as Graduation Speaker in 1954.

It is easy to get the feeling that Lew Leeburg never left campus during the 25 years since he graduated.

While pursuing a career with IBM which he began in 1956, Dr. Leeburg continued his close relationship with UCLA and GSM as a graduate student and tireless alumni organizer. Dr. Leeburg received his MBA from GSM in 1964 and later completed his doctorate in Computer Methods here.

Dr. Leeburg is well aware of the critical need for private support at a large state supported school like UCLA. He feels that the funds raised through development efforts provide the margin of excellence for a school like UCLA. Dr. Leeburg has contributed more than his share to the university's development effort. He was a member of the Alumni Association Board from 1961 to 1963 and again from 1968 to 1970. He has been serving as a UCLA Foundation Trustee since 1971. He also served on the Dean's Roundtable at GSM.

Dr. Leeburg characterizes his career with IBM as being one in which he has kept in close contact with the technologists and researchers at IBM and at various academic institutions and with business practitioners, the potential end users of data processing capability. He

feels that he has a unique talent for bridging the gap between these diverse sets of professionals. His knowledge of the technology as well as his understanding of the problems faced by the business practitioner made him well qualified for a position with IBM's Los Angeles Scientific Center where he was assigned for fourteen years before accepting his current position as Consultant for Special University Programs in June of 1978. Dr. Leeburg worked his way up to Manager of the Los Angeles Scientific Center. In this role, he was able to influence the direction of the Center's research efforts to include his concern for the practical implication of that research.

Once again, Dr. Leeburg can be seen frequenting the ivy-covered walls of academia in his present position at IBM. But you're as likely to find him at any number of major universities on the West Coast as you are to catch him at his alma mater. His current responsibilities include efforts to increase the professional relationship between IBM's technical staff and university researchers on research projects of mutual interest.

Dr. Leeburg sees a growing need for persons with strong management training and with a knowledge and appreciation of computer-based information systems. He feels that GSM's Computers & Information Systems program is designed to train such people. He believes that the quality of that training is enhanced by interaction with data processing practitioners. These beliefs, along with his awareness of the financial needs of such a program, provide the motivation behind his commitment to the C.& I.S. Associates.

After spending several hours with Dr. Leeburg, I could not help but feel that I had come to know a very special person; a person whose dedicated efforts over many years have helped make UCLA, GSM, and the Computers & Information Systems program an exciting and challenging learning environment. □

—Bill DeLone

Fortune magazine recently hailed **DUWAYNE J. PETERSON** as "one of the highest-ranking data-processing executives anywhere."<sup>1</sup> As Executive Vice President of the Automated Data Processing Group at Security Pacific National Bank, Mr. Peterson is responsible for a broad range of services which include all forms of telecommunications, data processing at both corporate and branch levels, check processing, and all electronic banking services including sales and service for supermarket terminals and charge cards. In addition to serving as Security Pacific's representative to the C.& I.S. Associates, Mr. Peterson is also a UCLA Chancellor's Associate and, as such, serves as the bank's senior representative to this campus-wide advisory body.

Prior to joining Security Pacific, Mr. Peterson's career spanned the United States. A native of Michigan, he received a Bachelor's degree from MIT, served three years with the U.S. Navy, and was employed as a commercial sales engineer for Honeywell in Los Angeles. He left Honeywell to pursue an MBA at UCLA where he specialized in operations research. After completing his MBA, he joined the Ford Motor Company where he advanced to Systems Manager for the Product Development group. His tenure with Ford marked the

# Leonard Kleinrock Addresses Winter Associates Meeting

beginning of his career in the management of data processing. Mr. Peterson spent the next seven years in New York City, first with Citibank where he helped overhaul their data processing operations, and then as Vice President of Information Systems for RCA. He returned to Los Angeles in March 1977 to join Security Pacific as Senior Vice President in charge of the Automated Data Processing Department. He assumed his current position in December 1978.

Mr. Peterson believes that data processing provides a career path to top management for individuals with good analytical skills. He cautioned against getting immersed in technology. While some formal training in programming languages, for example, is essential, one does not need to be the "world's greatest FORTRAN programmer." Mr. Peterson believes that a good data processing manager should be capable of managing other functions in an organization as well. As a case in point, promising individuals often serve as his Administrative Assistant, working directly with him for six months, before moving on to other departments. The visibility afforded by working in the data processing area makes these individuals highly sought after for line positions.

Mr. Peterson predicts that communications technology will revolutionize the future nature of banking services. Within five years, Security Pacific will be able to offer the same services worldwide that are currently available in Los Angeles. In ten years, branch banking as it exists today may be extinct; rather, customers will use terminals to bank in their homes. Within his organization, work is already underway to develop a prototype office of the future. Mr. Peterson projects that Security Pacific will install a decision-support system for its own managers within five years, and that this system will be characterized by a terminal in every office. He volunteered that he will be one of the first to install a terminal in his office in order to encourage acceptance for the new system by the bank's top management.

His concern for the profound and often unsettling impact of data processing on the user and the resulting necessity for him to view himself as a "change agent" for his organization have undoubtedly contributed to his professional success. □

—Mary Culnan

<sup>1</sup>Bylinsky, Gene, "EDP Managers Put on Business Suits," *Fortune*, Nov. 6, 1978, pp. 68-74.

## Bits and Bytes

The C. & I.S. Associates are pleased to acknowledge three firms which have pledged their support for the C. & I.S. program since the last edition of the Channel. Those firms are **ARTHUR ANDERSEN AND CO.**, the **ATLANTIC RICHFIELD COMPANY**, and **HUGHES AIRCRAFT COMPANY**.

GSM received a record number of fourteen applicants for its doctoral program in Computers & Information Systems, reflecting increasing interest in the program. This was the second largest number of applications received for any academic program in GSM. The best applicant(s) will receive financial support through the resources provided, at least partially, by the C. & I.S. Associates Program. □

The Winter Meeting of the Computers & Information Systems Associates was held on Friday, March 16th, at UCLA. The meeting commenced with a luncheon at the Faculty Center.

After lunch, the Associates attended a session describing the C. & I.S. curriculum at the Graduate School of Management. The curriculum session was followed by the highlight of the meeting, a presentation given by **Professor Leonard Kleinrock**. Dr. Kleinrock, who is a Professor of Computer Science at UCLA and an authority on telecommunications, spoke on "The Impact of Computer Networks." He first outlined the problems and solution strategies for serving many network users who only demand service for short periods of time. He reviewed the progress and growth of computer networks throughout the world and indicated that as the number of networks increase, stress will be placed on long wide-band communications as well as on local access networks. Professor Kleinrock then went on to explain how radio packet switching provides the answer to both the need for greater long-haul communications capacity and the need for local access networks. Professor Kleinrock's address was enthusiastically received by those in attendance.

Dr. Ephraim McLean, Chairman of the C. & I.S. Curriculum Committee, chaired the curriculum session which preceded Dr. Kleinrock's presentation. Dr. McLean outlined the C. & I.S. courses available to graduate business students who wish to concentrate in management information systems. He explained that these courses are divided into two tracks: a technology track and a systems track. Dr. Bennet Lientz, a C. & I.S. faculty member, gave a more detailed presentation of what is covered in the technology track, describing courses covering computer hardware and software, management of computer systems, systems analyses and design, data base management systems, computer simulation, and telecommunications and computer networks. Dr. Burt Swanson, another C. & I.S. faculty member, gave a description of what is covered in the systems track, including an introduction to information systems, information systems for planning and control, measurement in information systems, and special topics in information systems.

After the presentation, the Associates, as the senior MIS representatives of a number of firms who recruit C. & I.S. graduates, were asked to comment on the MBA curriculum. The response was generally favorable. Some participants felt that the Telecommunications and Computer Networks course should be made mandatory rather than elective in view of the impact this field is having and will have on computers and information systems. Others were concerned about the curriculum becoming too technical and wanted to be sure that the managerial content was preserved.

After the discussion of the MBA program for C. & I.S. majors, Mary Culnan, a fourth year doctoral student, gave an overview of the doctoral program in C. & I.S.

*Continued on page 4*

Kleinrock...Continued from page 3

She commented favorably on the breadth of offerings and the diversity of the C.&I.S. faculty. She emphasized the importance of the Associates program to the doctoral students, noting that it provides both financial support to doctoral students as well as contacts and sites for the conduct of doctoral research. Specifically, she pointed out that several of the Associates have provided her with sites for her dissertation research.

The Associate firms were well represented at the meeting. Attending were Pat McNally and Doug Cunningham of Arthur Andersen & Co.; Jack Murray, Hal Bookbinder, Uwe Michel, and George Slomansor of Atlantic Richfield Co.; Tim Trujillo of Carter Hawley Hale Stores; Tom Blount of Hughes Aircraft; Bill Taubert, Al Colledge, and Steve Manville of Hunt-Wesson Foods, Inc.; Lew Leeburg and George Widding of IBM; Bill Finkelstein, Steve Jackson, and Dave Trogon of Security Pacific National Bank; Steve McKenzie of Xerox Business Systems; and Haig Bazoian of Xerox Computer Services.

Also attending were invited guests Ted Gourley of Edwards Laboratories; Jack Van Paddenburg and John Fielder of Southern California Edison; Ed Hidsman of TRW; and Steve Eisenberg of Twentieth Century-Fox Film Corp. □

The next Associates meeting is scheduled for Friday, June 8, and will be highlighted by an address from Dr. Daniel Teichroew, who is a Professor of Industrial and Operations Engineering at the University of Michigan and Director of the Information System Design and Optimization System (ISDOS) Project at the University of Michigan. He will speak about techniques and trends in the area of MIS applications development.

This newsletter represents our continuing effort to disseminate information about Computers and Information Systems (C.&I.S.) activities within the Graduate School of Management to interested individuals and organizations. As before, comments and suggestions will be welcomed

Ephraim R. McLean, *Chairman, Computers and Information Systems Curriculum Committee*; William H. DeLone, *Newsletter Editor*; Susan Corley, *Secretary and Assistant Newsletter Editor*;

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## Calendar of Future Events

### May 3, 1979

Financial Executives Institute/Society for Management Information Systems seminar on "MIS: the State of the Art" at Los Angeles Bonaventure Hotel. C.&I.S. Associate **DuWayne Peterson** is co-chairman for the seminar. **Dr. Ephraim McLean** is the program co-chairman. Also included on the Organizing Committee are Associates **Jack Murray** of ARCO and **Carl Reynolds** of Hughes Aircraft.

### June 8, 1979

Spring Associates Meeting with a presentation by **Dr. Daniel Teichroew** from the University of Michigan.

### October 1979

Management Systems Career Night at UCLA Graduate School of Management.

### December 10-12, 1979

Conference (and Tutorial) on The Entity-Relational Approach to System Design at the UCLA Graduate School of Management. **Dr. Ephraim McLean** will be the Conference Chairman. **Dr. Peter Chen** will be the Program Chairman.

### January 19-26, 1980

"Management of the Information Service Resource" presented by **Richard L. Nolan** of Nolan, Norton, Associates and by **Ephraim R. McLean** of the C.&I.S. faculty. An intensive one week program to be held at the UCLA Graduate School of Management.

### March 9-11, 1980

Conference on Application Development Systems in San Jose, California. This national conference is jointly sponsored by ACM, IBM, MIT, and UCLA. □

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