



CHANNEL

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Fall 1979

MIS Career Night



The 3rd MIS Career Night was held on Wednesday, October 10, 1979, at the James C. West Alumni Center. This annual event provided an opportunity for over 70 MIS executives to discuss career opportunities in information systems with the more than 120 GSM students who attended. Interest in information systems field appears to be growing rapidly as over 80 students who signed up to attend had to be turned away due to space limitations.

Following the opening cocktail hour, the attendees assembled for a panel presentation by **Phil Hauser** of Source EDP, and C.&I.S. Associates members **Pat McNally** of Arthur Andersen, and **Walter Bauer** of Informatics. Dr. Bauer first described career opportunities in the computer services industry. He stated that the declining costs of computer hardware presents major opportunities because the computer field is "hopelessly behind" in taking full advantage of the capabilities provided by the hardware. Mr. McNally next described the range of activities performed by consultants in the MIS area and presented criteria for differentiating among consulting firms. Finally, Mr. Hauser described career opportunities in the information systems field, citing some of the positions such as EDP auditors and data base administrators which have emerged as a result of technological advances.

Following the formal presentations, the panelists addressed questions from the audience. A number of the questions concerned the availability of jobs for MBA's without a technical background. Mr. McNally replied that the key ingredients were the ability to relate to things

quantitatively and a broad business perspective. A technical background was considered a plus, but many organizations such as Arthur Andersen have extensive in-house training programs. When asked, "Where are the MIS jobs?" Mr. Hauser quickly replied, "Everywhere." The program concluded with an informal discussion period.

Following MIS Career Night, a dinner was held for the C.&I.S. Associates at the Kirkeby Center in Westwood. **Prof. Ephraim McLean** presided over a brief business meeting, and presented **Dr. Lewis Leeburg**, outgoing Chairman of the C.&I.S. Associates, with a plaque recognizing his instrumental role in establishing the Associates and serving as its first Chairman. Prof. McLean also announced that **Mr. DuWayne Peterson**, Executive Vice President of Security Pacific National Bank, would succeed Dr. Leeburg as Chairman of the Associates for 1979-80.

In attendance were Associate members Arthur Andersen, Atlantic Richfield, Carter Hawley Hale Stores, Ernst & Whinney, Hughes Aircraft Co., Hunt-Wesson Foods, IBM, Security Pacific National Bank, TRW Systems, Twentieth Century Fox Film Corp., and Xerox, and invited guests, UNIVAC division of Sperry Rand Corporation.

Other invited guests included **Bob Michlin**, student coordinator of MIS Career Night and his staff, and **Phil Hauser** of Source EDP.

(For more on Career Night, see p. 4)

Focus on C.&I.S. Associates

Three New Firms Join C.&I.S. Associates

As President of Xerox Computer Services (XCS), **Haig M. Bazoian** is responsible for a national marketing and service organization consisting of eighteen branch offices, an online business data base with a capacity of 70 billion bytes, and a network consisting of nearly 100,000 miles of dedicated lines. XCS



provides an on-line financial and accounting service, packaged software products, on-site hardware, general timesharing, and educational and consulting services for its customers, which include manufacturing and distribution firms as well as city governments. On a daily basis, these users access the more than 30 XCS computer systems using nearly 3000 terminals, and generate more than 150 million print lines per month.

A native of California, Mr. Bazoian received both a B.S. Degree in Engineering and an MBA from UCLA. After graduation, he traveled around the world and worked in several positions with engineering firms in engineering and project management. Four years after completing his MBA, Mr. Bazoian decided to pursue a career in data processing because of the tremendous growth opportunities. He joined the Service Bureau Corporation as a marketing representative and progressed to the position of Marketing Manager. In 1970, Mr. Bazoian joined the fledgling Xerox Computer Services in Los Angeles as its first Marketing Manager. During the next seven years, he served in positions of increasing responsibility with XCS until in October 1977, he assumed his present position as President.

Mr. Bazoian feels his industry and his company face two major challenges. The first is to be able to hire and train the people necessary to keep up with the explosive growth of the field. The second is to bring together and better match the information processing requirements of the user with available technology.

When asked what factors contribute to success in the data processing field, Mr. Bazoian responded: "The ability to deal with rapid technological change and to adapt quickly to new requirements. Equally important are such qualities as working hard and being creative and innovative in what you do." During the first few years, he believes it is especially important to be a generalist by gaining exposure to many different parts of a business. Further, he feels that it is important to actively seek out growth opportunities, both in terms of formal education and on-the-job training. As reflected by the professional success of Haig Bazoian, XCS employees seeking a role model need look no further than their own President.

Ted Gourley, Vice President for Manufacturing for Edwards Laboratories division of American Hospital Supply Corporation, has joined the C.&I.S. Associates this Fall. Mr. Gourley obtained his M.B.A. from UCLA in 1972 and has maintained his strong ties with GSM since then.

Beginning in January 1980, two more companies will join the Associates. Twentieth Century Fox Film Corporation will be represented by **Charles C. Tucker**, Vice President of Planning and Information Services, and **Omer T. Simeon**, Director of Corporate EDP (and a UCLA graduate). The second company is Informatics, with **Dr. Walter F. Bauer**, the President, taking an active interest in Associate affairs. Although not a UCLA graduate himself, Dr. Bauer is closely following the progress of his son, Tom, who is presently a second-year M.B.A. student at GSM.

Professor Sprowls Visits the People's Republic of China

In the latter part of October, **Clay Sprowls** visited mainland China with a small group of management/computer specialists. While there he spoke with computer science faculty from Tsinghua University (Peking), Shan Tong University (Tsinan), and Fudan University (Shanghai) about the curriculum, teaching methods, research, and applications of the computer. Most instruction is done in ALGOL, FORTRAN, BASIC, and Assembly Language on minicomputers built at the universities and resembling the Nova. Some are limited to paper tape input and teletypewriter output; others have line printers and advanced plotters that are built in China (at a plant in Inner Mongolia).

At the Shanghai Institute of Mechanical Engineering, **Professor Joseph Bettat** (a visiting professor about to return to MIT) arranged for Professor Sprowls to give a lecture to a special class of 35 students who had been studying management science, operations research, statistics, and computing at the Institute. They were university professors, factory managers, and government officials from all over China who were enrolled in a special course of study. He lectured (with the aid of Bettat's translator) on the subject of Data Bases and Data Base Management Systems to this group. The lecture was followed by a discussion and questions with the whole group and then two smaller sessions with three to four individuals.

Professor Sprowls visited four computer centers within the Institute, three of them using computers built in China. The fourth was a new laboratory housing four Cromemco microcomputer systems, two with two terminals and two with seven terminals. The Institute plans to place some of these terminals in different locations for use by faculty and students. The teaching and applications related to management tend to be highly technical and quantitative with a great deal of interest in simulation and model building.

Xerox Presents Check



GSM Dean J. Clayburn La Force (center left) joins James C. Campbell, President of Xerox Business Systems (far right), William Middlesworth, University Relations for Xerox (center right), and Ephraim R. McLean, Chairman of C.&I.S. (far left) for an informal ceremony in

his office recognizing the receipt of Xerox's check for \$7500 for the renewal of their membership in the C.&I.S. Associates. (For other news of Xerox, see the profile on the left of Haig Bazoian, President of Xerox Computer Services.)

Managing the Information Resource January 20-25, 1980

Information services—broadly defined—are commanding increasing attention from top management. In addition to the problems and challenges that have long confronted the data processing activity within the organization, the emerging fields of telecommunications and office automation are compounding these concerns. Many senior DP managers are now being called upon to serve as the "Information Resource Manager" of their organizations and, as such, are becoming full members of the top management team. However, as their responsibilities broaden, these same managers are faced with a host of questions that invariably accompany this larger charter.

- Are we spending the right amount on information services? And for the right things?
- Is our planning and priority setting realistic and effective?
- Are our operations and development activity being conducted in an efficient manner?
- Are we attracting and retaining the type of people needed to function effectively in these expanded areas?
- Overall, are we meeting the information needs of the organization?

Complex questions such as these defy simple answers. The organizational setting and the stage of growth of the information services activity both force the manager in

charge to seek solutions that will be successful for his or her own special situation.

Managing the Information Resource is an intensive five-and-a-half day residential program designed to prepare managers for successfully dealing with the information services challenge of the 80's. Held here in the Graduate School of Management, this program combines discussions of leading-edge techniques for DP management with problem-solving analyses of real company situations. In both of these areas, active classroom discussion between participants and faculty is encouraged.

Led by **Dr. Richard L. Nolan**, the program builds on his successful Stage Approach to EDP Growth and develops a comprehensive perspective for managing the information resource. The co-leader will be **Dr. Ephraim R. McLean**, head of the Computers and Information Systems area within GSM.

They will be joined by members of the consulting staff of Nolan, Norton & Co., and faculty of the Graduate School of Management, including Professors **Bennet P. Lientz** and **E. Burton Swanson**. In addition, **Charles C. Tucker**, Vice President of Planning and Information Services for Twentieth Century Fox Film Corporation, will also participate.

For further information on attending this important program contact **Susan Strommer** at (213) 825-1560 or **Susan Corley** at (213) 825-3410.

Colloquium Series

The C.&I.S. Colloquium Series continued with one presentation during the summer and five presentations during the Fall Quarter.

The first colloquium was given by **M. Lynne Markus** of the Sloan School of Management at M.I.T. In her talk, "Implementation—Rx or Explanation," she described research which explored the life history of management information systems in major U.S. corporations as a means of developing theory capable of explaining implementation as a process of negotiation.

The Colloquium Series resumed in the fall with a presentation by **Robert Balzer** of the Information Sciences Institute of the University of Southern California. His talk entitled "Abstract Programming" described a unified approach to software production and maintenance. This work is aimed at automating the initial formation of a specification and its subsequent validation as an acceptable implementation contract.

The third colloquium entitled "On-line Databases—The Phenomenon and the Marketplace" was presented by **Carlos A. Cuadra** and **Judith Wanger** of Cuadra Associates, Inc. of Santa Monica, California. They traced the historical development and described the spectacular growth of commercial on-line databases services. They also presented examples of bibliographic and numeric database systems which provide external information of use to managers in a variety of organizational settings.

The fourth colloquium was presented by **Charles Smith** of IBM's Santa Teresa Laboratory in San Jose,

California. His talk, which was titled "Practical Application of Software Science," described the ways that IBM has applied software science tools to actual software development projects. He described the use of these techniques to measure program length, vocabulary, volume, difficulty, and language level as a means for predicting defects in existing program code.

The fourth Colloquium, "Cost/Utilization: A Measure of System Performance," was delivered by **Israel Borovits**, Visiting Associate Professor in the Graduate School of Business at the University of Southern California. In his talk, he presented a method for evaluating computer system performance in terms of a cost/utilization factor and a measure of imbalance. The characteristics of the system evaluation criteria which are derived from cost/ utilization data were also discussed.

The final colloquium was given by **Mary J. Culnan**, a fall graduate of the C.&I.S. doctoral program and currently an Assistant Professor of MIS at the University of Virginia. Her talk on "Organizational Information Flows and the Industrial Library: Implications for MIS," compared and contrasted libraries in commercial organizations with current computer-based management information systems. She also described the ways that these libraries support managerial decision-making in two large organizations.

The Colloquium Series will resume after the quarter break. Announcements will be distributed prior to the first lecture in January.

More on MIS Career Night . . . *continued from page 1*



Bits & Bytes

Professor Peter Chen taught a seminar entitled "Office of the Future" during the fall quarter. The course, which is believed to be one of the first of its kind ever offered, examined the technology associated with the office of the future and discussed the implications of this technology on office productivity, human behavior, organization structure, and society. Invited guest speakers representing Bell Northern Research, Lexitron Corporation, IBM, Micronet, UCLA Institute of Industrial Relations, Office Technology Research Group, and Xerox Palo Alto Research Center presented their views and experiences with this subject. GSM student **Steve Gilheany** assisted Professor Chen with the arrangements for the class. Professor Chen is the author of a book, *Tutorial: Centralized and Distributed Data Base Systems*, which he co-authored with **W.W. Chu**. The book was published by IEEE Computer Society in October 1979.

Dr. Robert L. Carmichael gave presentations on the computing facilities at GSM to a delegation of educators from the People's Republic of China who visited the UCLA campus in May 1979, and to a group of Japanese computer science students who toured the GSM Computer Center in August 1979.

Professor Seev Neumann is the author of a book, *Computer Systems Performance Evaluation* which he co-authored with **I. Borovits**. The book was published by Lexington Books in July 1979.

Professor Ephraim R. McLean presented a paper on "End Users as Application Developers" to a special by-invitation-only Conference sponsored by GUIDE, SHARE, and IBM in Monterey, California, in October 1979. Also, Dr. McLean was elected as the vice chairman of the California Educational Computing Consortium. The Consortium promotes the use of computing in support of research and teaching in colleges and universities in California. Dr. McLean is presently serving his second term as one of the two University of California representatives to the Board of Directors of the Consortium.

Professor E. Burton Swanson was nominated and accepted for membership in the Working Group WG 8.2 of the Interaction of Information Systems and the Organization of the International Federation for Information Processing (IFIP). Professor Swanson also published a paper, "On the User-Requisite Variety of Computer Application Software" in the *IEEE Transactions on Reliability*, August 1979.

A paper entitled "Management Information Requirements Assessment: The State of the Art" by C.&I.S. doctoral student **Randy Cooper** and Professor E. Burton Swanson has been accepted for publication in the Fall 1979 issue of *Data Base*.

Bill DeLone, C.&I.S. doctoral student, successfully passed his major field exam during the Fall quarter. During the summer, he and Professor Eph McLean worked part-time at IBM's Los Angeles Scientific Center where they conducted a research project to survey and evaluate computer-based information systems designed for use by business personnel without any data processing training.

Mary Culnan, C.&I.S. doctoral student, presented a paper entitled "The Boundary Spanning Roles of the Internal Information System," at the International TIMS Conference in Honolulu, Hawaii. She also co-chaired a

technical session entitled "Organization Theory and Information Science: Implications for Design and Evaluation" at the annual meeting of the American Society for Information Science in Minneapolis, October 1979.

C.&I.S. Welcomes New Doctoral Students

C.&I.S. admitted five new doctoral students during the fall quarter. The entering class was tied with one other area in the school for the largest number of new students.

Geoff Collier was born "amid the towering mountain peaks" of Jasper, Alberta, Canada. He completed a Bachelor of Commerce degree at the University of Alberta in 1979 where he majored in accounting. His research interests include databases and information system design and development techniques.

Cheng-Kiang Farn is a native of Malaysia. He earned a B.S. in Mechanical Engineering from National Taiwan University, and a M.Sc. in Management Sciences from the University of Manchester, England, in 1979. His research interests include the application of computers and information systems in small business environments.

Eli Harel was born in Israel. He has a B.S. degree from Technion University, and he completed a M.S. degree at Tel Aviv University in 1979.

Dennis Perry earned his B.S. and M.S. degrees from the California State University at Fresno. Prior to entering the Ph.D. program at GSM, he was on the faculty of his alma mater.

Lillian Tang is a native of Hong Kong. She earned a B.S. degree from the State University of New York, and completed a M.S. degree in Computer Science at UCLA in June 1979.

Meet the C.&I.S. Staff

When you call either the new number for the C.&I.S. Research Program, (213) 825-3410, or the existing number, (213) 825-2502, the voice on the other end of the phone is likely to be either **Susan Corley** or **Shirley Price**. This article is to introduce these two individuals to you who manage the C.&I.S. office on a day-to-day basis.

Susan Corley, the new secretary for the C.&I.S. Research Program, was born in Seattle, Washington. She relocated to California at the age of six months. After attending the University of Southern California, she was employed as a claims adjuster for an insurance company for three years. She came to UCLA in May 1978 because of a desire to work in a university atmosphere. She served as an area secretary until September 1979 when she assumed her present position. In addition to her duties at GSM, Susan is a full-time student at Santa Monica College where she is majoring in elementary education.

Shirley Price, replacing Susan as the C.&I.S. area secretary, has lived in California since the age of three. She earned a B.A. degree in French and Russian from the University of California, Santa Barbara. She also holds

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Upcoming Events

December 10-12, 1979

A Conference (and Tutorial) on the Entity-Relationship Approach to Systems Analysis and Design will be held at the UCLA Graduate School of Management. **Dr. Ephraim R. McLean** is the Conference Chairman and **Dr. Peter Chen**, the Program Chairman.

January 20-25, 1980

"Managing the Information Resource" is an intensive five-and-a-half day program for MIS managers to be offered at the UCLA Graduate School of Management. This program features **Dr. Richard L. Nolan**, CEO of Nolan, Norton, and Company, and **Professor Ephraim R. McLean** of the C.&I.S. faculty.

February 15, 1980

The Winter C.&I.S. Associates Meeting and Lecture has been scheduled, featuring **Dr. James Emery**, President of EDUCOM, speaking on the topic of "The Challenge of Distributed Data Processing."

March 9-11, 1980

ACM (SIGBDP), IBM, MIT (Sloan School), and UCLA (C.&I.S.) are cosponsoring a Conference on Application Development Systems (COADS) in San Jose, California. Among those presenting papers are Professors **Bennet P. Lientz** and **E. Burton Swanson**.

May 14-16, 1980

The International Conference on the Management of Data, sponsored by SIGMOD of ACM, will be held at the

Sheraton-Miramar in Santa Monica, California. **Dr. R. Clay Sprowls** is the Conference Chairman; **Dr. Peter Chen**, the Program Chairman; and **Beatrice Yormark** of Interactive Systems Corporation, the Local Arrangements Chairwoman.

May 16-17, 1980

C.&I.S. will host the Planning Meeting for next fall's Conference on Information Systems. The May meeting, held at UCLA, will bring together a number of academics who will be planning for the first annual academic Conference on Information Systems, scheduled to be held in Philadelphia on December 8-10, 1980.

May 19-22, 1980

The National Computer Conference will be in Anaheim, California. Professors **Bennet Lientz** and **Ephraim McLean** will each be chairing sessions as well as arranging for several other sessions.

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two teaching credentials. Formerly a math and science teacher in Southern California, she assumed her present position in September 1979. Shirley is hoping to attend law school in the near future.

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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*; Mary J. Culnan, *Newsletter Editor*; Susan Corley, *Secretary and Assistant Newsletter Editor*.

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