

IRMIS

Institute for Research on the
Management of Information Systems



Graduate School of Business
Indiana University
Bloomington, IN 47405
Phone: (812) 335-7330

January 8, 1987

Professor Gortan Resinovitch
Ekonomska Fakulteta
Ljubljana University
Kardeljeva Ploščad 17
61000 Ljubljana, Yugoslavia

Dear Gortan:

I hope this is what you needed. If there are any changes, please don't hesitate calling. Thank you for assisting me in getting this letter into the mail.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lisa Killion".

Lisa Killion

(Milt's secretary)

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National Science Foundation
Washington D.C. 20590

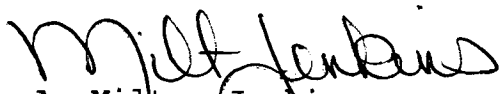
To Whom It May Concern:

I am writing this letter at the request of Professor Resinovitch, in support of the research program currently being developed by Professors Resinovitch, Grad and Rupnik. My understanding of this project is based on discussions with these three professors, a research outline written with Professor Grad in the summer of 1987, and Professor Resinovitch's thesis research, "The Evaluation of Information Used In Management Support Systems". It is certainly a topic of current interest in the MIS field and is at the heart of many current research projects underway at IRMIS.

I am willing to lend support to this line of research subject to the review of specific projects. The proposal currently under development, as I understand it, has three major thrusts. The first thrust is the use of color graphics in information presentations. In this area we have completed a series of experiments including seven doctoral thesis and are eager to continue work in this area on a cooperative basis. The second area is the examination of the components of information quality. Here we have done some preliminary research and developed taxonomies which should be of use in the planned studies. The final topic is an examination of the value of information. This area has received the least attention in terms of concentrated research. But it is clearly an area of great importance. Without a viable economic theory for the value of information, progress in this area will continue to be limited. Calls for research on this topic have been common in the MIS literature for the past several years.

In summary, given a sound research proposal in this area, I am willing to provide assistance and cooperate with Professors Resinovitch, Grad and Rupnik. I know these gentlemen personally and have confidence in their abilities. Consequently, I would personally make myself available to provide whatever assistance necessary to enhance their probabilities of success.

Sincerely,


A. Milton Jenkins
Director of Research

AMJ/lak

NAME

Jenkins, Arnold Milton

DATE OF BIRTH

June 12, 1938

EDUCATION

Graduate: Ph.D., University of Minnesota, 3/77
 MBA., University of New Mexico, 8/71

Undergraduate: BS.E., University of Albuquerque, 6/69
 A.M.E., Worcester College, 6/61

ACADEMIC APPOINTMENTS

6/86 - Present Director of Research, Institut~~e~~ for Research
 on the Management of Information Systems,
 Indiana University

5/86 - Present Adjunct Professor of Management Information
 Systems, Visoka Sola Za Organizacijo Dela,
 Univerza Maribor

8/85 - 6/86 Distinguished Research Fellow, Institute for
 Research on the Management of Information
 Systems, Indiana University

8/84 - 8/85 L. J. Buchan Distinguished Professor, College
 of Economics and Management, Oakland
 University

8/81 - 8/84 Associate Professor of Management Information
 Systems, Indiana University

1/77 - 8/81 Assistant Professor of Management Information
 Systems, Indiana University

9/73 - 8/76 Associate Member of the Graduate Faculty,
 University of Minnesota

12/71 - 6/72 Visiting Lecturer, University of New Mexico

OTHER APPOINTMENTS AND PROFESSIONAL CONSULTANTSHIPS

1/77 - Present

Consulting Engagements:

U.S. Army Information Systems Software Development Center - the effective use of prototyping and 4GLs in application systems development and maintenance.

Peat, Marwick, Mitchell and Company--Visiting Professor: research, analysis, testing and development of software tools such as program analyzers, retrofit engines, code generators, etc.,

Dunn Memorial Hospital - the acquisition, development and installation of a large application software system.

General Mills, Inc. -- the analysis and preparation of the MIS organization for the use of prototype systems development approach. Buffalo Rock Company -- the effective use of transactional data in providing information for planning and decision making.

Hardware Wholesalers, Inc. -- the analysis of contractual relationships in purchasing software products and services.

Penton Learning Systems, Inc. -- the extended use of material requirements planning systems in the purchasing function.

United States Agency for International Development -- the training of project and middle managers in using analytic skills and computerized information systems, the development of user interfaces for color-graphic decision support systems, and computer literacy training for professionals.

Owens Corning Fiberglas -- the development of a methodology for enhancing systems development productivity and design of a training program for systems staff.

Indiana University -- the identification and integration of computer systems user's needs in planning and policy development.

State of Maryland, State Board of Higher Education -- the review and analysis of proposed curriculum in the area of Management/Computerized Information Systems.

9/73 - 1/77

Consulting Engagements:

Minnesota Energy Agency -- the development of a training program on the use of energy information systems.

Minnesota Telephone Association -- the design of an integrated information system to support managerial functions.

Naval Ship Research & Development Ctr. -- the design and development of an instrument to measure use and satisfaction with information systems.

3 M Companies, Inc. -- the design of an information system to support the analysis of merger and acquisition policies.

12/62 - 9/72 Sandia Laboratories, Albuquerque, NM,
Manager, Contracting Representative,
Buyer, Project Engineer, Senior Design
Engineer

2/57 -10/62 Whitin Machine Works, Whitinsville, MA,
Design Engineer, Machine Designer

LICENSES AND CERTIFICATION

Professional Engineers License, State of New Mexico

PROFESSIONAL SOCIETIES

Association for Computing Machinery
SIGCUE, SIGBDP
Curriculum Committee on Computer Education for Management
Association for Systems Management
Beta Gamma Sigma
Decision Sciences Institute
Delta Epsilon Sigma
International Society for Inventory Research
National Computer Graphics Association
Society of Data Educators
Society for Information Management

HONORS AND AWARDS

Apr. 1987 Nominated for the Indiana University School of
Business Doctoral Students Association's
Inspiration and Guidance Award and Teaching
Excellence Award.

March 1985 Listed in Marquis, Who's Who in Frontier Science
and Technology, Second Edition.

Aug. 1985 Named the first Distinguished Research Fellow at
the Institute for Research on the Management of
Information Systems, Indiana University.

May 1984 Named by Beta Gamma Sigma The 1984 L.J. Buchan
Distinguished Professor.

Apr. 1984 Nominated for the Indiana University School of
Business Doctoral Student Association's
Inspiration and Guidance Award and Teaching
Excellence Award.

- Feb. 1984 Listed in Marquis Who's Who in Frontier Science and Technology, First Edition.
- Apr. 1983 Won the Indiana University School of Business Doctoral Student Association's Inspiration and Guidance Award.
- Apr. 1983 Nominated for the Indiana University School of Business Doctoral Student Association's Teaching Excellence Award.
- Apr. 1982 Won the Indiana University School of Business Doctoral Student Association's Inspiration and Guidance Award.
- Apr. 1981 Nominated for the Indiana University School of Business Doctoral Student Association's Inspiration and Guidance Award.
- Apr. 1980 Won the Master of Business -- Career Integrated Program Student Advisory Board's Teaching Excellence Award.
- Apr. 1979 Won the Indiana University School of Business MBA Association's Teaching Excellence Award.
- Mar. 1978 Won the Distinguished Service Award from the Management Information Research Center School of Business Administration University of Minnesota.
- Nov. 1977 Received Honorable Mention Doctoral Dissertation Award by the American Institute for Decision Sciences.

TEACHING ASSIGNMENTS

The following is a chronological listing of all courses taught at IU, with course number, course description and approximate enrollments:

Spring Semester, 1977

K201	The Computer in Business	67
A523	Business Information Systems	25

Fall Semester, 1977

K201	The Computer in Business	65
K505	Electronic Data Processing Methods	32
K&P590	Independent Study in Operations	7

Spring Semester, 1978

S505	Introduction to MIS	36
A523	Information Systems Analysis & Design	33
K&P590	Independent Study	6

*Summer Semester, 1978

S590	Independent Study in MIS	11
S590	MIS Design and Applications (Trial run of S560)	3

Fall Semester, 1978

S505	Introduction to MIS	53 (Bloomington)
S505	Introduction to MIS	20 (Indianapolis)
S590	Independent Study in MIS	12

Spring Semester, 1979

A523	Information Systems Analysis & Design	41
S798	Research Seminar in MIS	9
S590	Independent Study in MIS	10
S560	MIS Design and Applications	9

*not officially teaching in summer

Summer Semester, 1979

S560	MIS Design and Applications	3
S590	Independent Study in MIS	16

Fall Semester, 1979

A523	Information Systems Analysis & Design	30 (Bloomington)
A523	Information Systems Analysis & Design	11 (Indianapolis)
S503	COBOL	14

Spring Semester, 1980

S601	Research Design & Methods in MIS	7
S798	Research Seminar in MIS	2
S503	COBOL	16
S590	Independent Study in MIS	2
S560	MIS Design and Applications	3

Summer Semester, 1980

S503	COBOL	28
S590	Independent Study in MIS	2

Fall Semester, 1980

A523	Information Systems Analysis & Design	41
S602	Research Topics in MIS	4
S503	COBOL	23

Spring Semester, 1981

S601	Research Design and Methods in MIS	5
S798	Research Seminar in MIS	4
S503	COBOL	23
S590	Independent Study in MIS	4
S560	MIS Design and Applications	3

*Summer Semester, 1981

S503	COBOL	34
S560	MIS Design and Applications	3

Fall Semester, 1981

S503	COBOL	21
S505	Introduction to MIS	38
A523	Information Systems Analysis & Design	26
S602	Research Topics in MIS	4

Spring Semester, 1982

S503	COBOL	27
S601	Research Design and Methods in MIS	20
S798	Research Seminar in MIS	4

Fall Semester, 1982

S600	Research Design and Methods in MIS	7
S602	MIS Research Topics in Administration and Technology	9

Spring Semester, 1983

S601	MIS Research Topics in Systems Analysis and Design	12
S798	Research Seminar in MIS	4
S560	MIS Design and Applications	3
S590	Independent Study in MIS	1

Fall Semester, 1983

S600	Research Design and Methods in MIS	23 (2 classes)
A523	Information Systems Analysis & Design	42 (2 classes)
S602	MIS Research Topics in Administration and Technology	3
S590	Independent Study in MIS	2

*not officially teaching in summer

Spring Semester, 1984

S601	MIS Research Topics in Systems Analysis and Design	15 (2 classes)
S560	MIS Design and Applications	3
S590	Independent Study in MIS	2

Summer Semester, 1984

S798	Research Seminar in MIS	3
S503	COBOL	25

**Fall Semester, 1984

MIS524	Introduction to MIS	64
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**Spring Semester, 1985

MIS680	Graduate Seminar in MIS	20
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Fall Semester, 1986

MIS600	Research Design and Methods in MIS	8
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Spring Semester, 1987

MIS601	MIS Research Topics in Systems Analysis and Design	8
S560	MIS Design and Applications	3

Fall Semester, 1987

MIS600	Research Design and Methods in MIS	8
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** at Oakland University

SERVICES

BUSINESS SCHOOL:

MBA Policy Committee (member three years)

MBA Policy Committee: X550 Subcommittee (member two years)

MBA Policy Committee: BPO Liaison Subcommittee (chairperson two years)

Computer Needs and Planning Committee (member six years, chairperson two years)

Ad Hoc Committee to Consider Library Information Retrieval by Computers (member one year)

Faculty Advisor for MIS Track MBA Students (approximately 15 students per summer, six years)

Faculty Advisor for MIS Supporting Field Doctoral Students (approximately 20 students per semester, six years)

Faculty Advisor for MIS Major Doctoral Students (approximately 10 students per semester, five years)

Supervisor for Honors Program Research Thesis (approximately 2 students per year, five years)

Doctoral Dissertation Committee (approximately 5 students per year, five years)

Informal Counseling in MIS for students at all levels (average in excess of five appointments per week, eight years)

DBA Policy Committee (member four years)

International Programs Committee (two year)

INDIANA UNIVERSITY:

Bloomington Campus Computer Use Committee (BCCUC) (member six years)

BCCUC: Executive Subcommittee (member three years) BCCUC: Database
BCCUC: Systems Subcommittee (member two years)
BCCUC: User Services Subcommittee (chairperson one year)
BCCUC: Baseline Subcommittee (member one year)
BCCUC: Electronic Mail and Office Subcommittee (member one year)
BCCUC: External Network Subcommittee (member one year)
BCCUC: Local Area Network Subcommittee (member one year)
BCCUC: BAC User Services Director Search and Screen Subcommittee
(member)

Indiana University Academic Computing Policy Committee (member one year)

Faculty Advisor for University Division (10 students two years, 5 students three years)

Faculty Sponsor for the High School Science Institute (approximately 2 students per summer, five years)

INDIANA:

Information Processing Committee, The Indiana Corporation for Science and Technology (member four years)

Unpaid Consulting: Dunn Memorial Hospital

IU, Information and Computer Services Office

IU, Office of International Programs

Planned Parenthood Association of Southern Indiana

NATIONAL:

Associate Editor for Theory and Research for the MIS Quarterly (seven years)

Editorial Board Member for Systems Objective Solutions (three years)

Associate Editor for Decision Sciences (four years)

Book Reviewer for Business Horizons

Referee for: Business Horizons

Communications of the ACM

Decision Sciences

Information Processing and Management

Management Science

INTERFACES

Journal of Information Systems

The Canadian Journal of Information Systems and Operational Research

Manuscript Reviewer [REDACTED] William C. Brown Company Publishers
Business Publications, Inc.
McGraw-Hill Book Company, Inc.
Prentice-Hall, Inc.
Richard D. Irwin, Inc.

Research Proposal Reviewer for: Indiana Corporation for Science and
Technology

National Sciences and Engineering
Research Council of Canada

MIS Curriculum Reviewer for: School of Economics and Management,
Oakland University

School of Business, Oklahoma
University

School of Business, University of
Missouri - St. Louis

Board of Higher Education, State of
New Jersey

College of Business, Indiana State
University

ACM Curriculum Committee on Computer Education for Management
(member five years)

Executive Committee for Annual International Information
Systems Conference (member three years)

Planning Committee for the Annual International Information
Systems Conference (member for eight years)

Planning Committee for the American Assembly of Collegiate
Schools of Business Information Systems Faculty Development
Institutes (member five years)

Doctoral Consortium Chairman, Fourth Annual International
Conference on Information Systems

Member of AACSB Accreditation Review Visitation Teams

MIS Track Chairman, Sixteenth Annual Conference of the American
Institute for Decision Sciences

Director of the Advanced MIS Faculty Development Institute for
the American Assembly of Collegiate Schools of Business (AACSB)
(four years)

DISSERTATIONS

"Master Production Scheduling In The Assemble To Order Environment: A Comparison of Two Techniques" by Barry E. King (member) 1979.

"An Evaluation of the Decision Making Effects of the Aggregation of Accounting Numbers in Management Accounting Reports: A Field Experiment" by Clinton White, Jr. (member) 1981.

"The Use of Learning Curve Analysis In Capacity Planning Decisions" by Timothy Lawrence Cmunt (member) 1981.

"Open Order Rescheduling Heuristics For MRP Systems in Manufacturing Firms" by Richard J. Penlesky (member) 1982.

"The Effects of the Knowledge of the Decision Model Used by the Decision Maker on the Evaluation of Information Systems" by Joon S. Kim, (chairman) 1982.

"An Investigation of Some Effects of Environmental Complexity and Systematic Bias on the MIS User System Interface: A Simulation Experiment" by John A. Ricketts (chairman) 1982.

"Executive Succession and Organizational Performance: An Empirical Investigation" by Idalene F. Kesner (member), 1983.

"An Examination of the Effects of Exception Reporting on Decision Making Performance" by Linda Philipich (chairman) 1983.

"An Investigation of the Effects of Education on the Use of a Decision Aid: A Simulation Experiment" by Richard A. Schilhavy (chairman) 1984.

"Normative vs. Judgemental Prediction: A Study of the Item Sales Forecasts of Department Store Merchandise Buyers" by Anthony Cox (member) 1984.

"Marketing Research Evaluation and Utilization: An Experimental Investigation" by Hanjoon Lee (member) 1984.

"A Contingency Model of Buyer-Seller Interaction: An Experimental Investigation" by Jeen Su Lin (member) 1985.

"Task Complexity, Information Complexity and the Form of Information Presentation: Effects on Decision Maker Performance" by Larry Davis (member) 1985.

"Effects of Interactions Between Forms of Presentations and Task Complexity on Information Extracting Procedures" by Kwan H. Yoo (chairman) 1985.

"The Effects of Variations in Information Complexity on The Performance on Extracting Information from Graphics and Tables" by Thomas Lauer (chairman) 1986.

"Assessing the Impact of Deterrent Countermeasures on Computer Abuse: An Initial Emperical Investigation" by Detmar W. Straub, Jr. (member) 1986.

"The Development and Testing of a Robust Metric for Measuring Question Complexity in Computer Graphics Research" by Theo B.A. Addo (Chairman) 1987.

"An Experimental Comparison of the Processing Efficiencies of Fourth Generation Languages (FOCUS) and Third Generation Languages (COBOL) in a Workstation Environment" by Bijoy BorDoloi (Chairman) 1987.

"The Development and Testing of a Metric for Assessing Information Complexity of Time-Series Business Graphics" by Edd Joyner (Chairman) 1987.

"An Evaluation of the Theoretical Functions of Color in Business Graphics Presentations" by Ellen Hoadley (Chairman) 1987.

"A Critical Incidents Study of First-level Applications Development Supervisors in Information Systems" by G. Nicholas Hopkins (member) 1987.

"Measures of User Satisfaction: A Psychometric Field Study of Leading Instruments Purporting to Capture the User's Evaluation of MIS Support" by Terrance F. Ryan (Chairman) 1987.

CONFERENCES ATTENDED

Sept. 12-15, 1976 Eighth Annual Conference of the Society for Management Information Systems, Chicago, Illinois.

Nov. 10-12, 1976 Eighth Annual Conference of the American Institute for Decision Sciences, San Francisco, California.

Sept. 26-28, 1977 Ninth Annual Conference of the Society for Management Information Systems, Los Angeles, California.

Oct. 19-21, 1977 Ninth Annual Conference of the American Institute for Decision Sciences, Chicago, Illinois.

Sept. 18-22, 1978 Tenth Annual Conference of the Society for Management Information Systems, Washington, D. C.

Oct. 30 -
Nov. 1, 1978 Tenth Annual Conference of the American Institute for Decision Sciences, St. Louis, Missouri.

July 8-13, 1979 Fourth Annual TIMS College of Information Systems Summer Workshop, Denver, Colorado.

Sept. 10-13, 1979 Eleventh Annual Conference of the Society for Management Information Systems, Minneapolis, Minnesota.

Nov. 19-21, 1979 Eleventh Annual Conference of the American Institute for Decision Sciences, New Orleans, Louisiana.

Mar. 11-12, 1980 Association for Computer Machinery/Data Processing Management Association Joint Computer Conference, Minneapolis, Minnesota.

May 19-22, 1980 American Federation of Information Processing Societies National Computer Conference, Anaheim, California.

Aug. 4-8, 1980 Fifth Annual TIMS College of Information Systems Summer Workshop, Williamstown, Massachusetts.

Sept. 21-24, 1980 Twelfth Annual Conference of the Society for Management Information Systems, Philadelphia, Pennsylvania.

Nov. 5-7, 1980 Twelfth Annual Conference of the American Institute for Decision Sciences, Las Vegas, Nevada.

Dec. 8-10, 1980 First International Conference on Information Systems, Philadelphia, Pennsylvania.

May 27-29, 1981 First International Symposium on Forecasting, Quebec City, Canada.

Nov. 18-20, 1981 Thirteenth Annual Conference of the American Institute for Decision Sciences, Boston, Massachusetts.

Dec. 7-9, 1981 Second International Conference on Information Systems, Boston, Massachusetts.

May 10-13, 1982 Informatica 82, Ljubljana, Yugoslavia.

May 26-28, 1982 Implementation of Materials Management Systems, European Working Group for Production and Inventory Control, University of Ghent, Ghent, Belgium.

Sept. 20-22, 1982 Fourteenth Annual Conference of the Society for Management Information Systems, Chicago, Illinois.

Nov. 22-24, 1982 Fourteenth Annual Conference of the American Institute for Decision Sciences, San Francisco, California.

Dec. 13-15, 1982 Third Annual International Conference on Information Systems, Ann Arbor, Michigan.

Sept. 11-13, 1983 Fifteenth Annual Conference of the Society for Information Management, San Diego, California.

Dec. 15-17, 1983 Fourth Annual International Conference on Information Systems, Houston, Texas.

Sept. 1-3, 1984 The International Federation for Information Processing, Working Group 8.2 Colloquium, Manchester Business School, Manchester, England.

Sept. 4-7, 1984 First International Federation for Information Processing Conference on Human-Computer Interaction, Imperial College, London, England.

Sept. 25, 1984	Invitational Computer Conference on Data Storage Technology, Detroit, Michigan.
Oct. 7-9, 1984	Sixteenth Annual Conference of the Society for Information Management, Chicago, Illinois.
Nov. 5-7, 1984	Sixteenth Annual Conference of the American Institute for Decision Sciences, Toronto, Canada.
Nov. 28-30, 1984	Fifth Annual International Conference on Information Systems, Tucson, Arizona.
July 29-31, 1985	Fourth World Conference on Computers in Education, Norfolk, Virginia.
Nov. 10-12, 1985	Seventeenth Annual Conference of the American Institute for Decisions Sciences, Las Vegas, Nevada.
Dec. 16-18, 1985	Sixth Annual International Conference on Information Systems, Indianapolis, Indiana.
Feb. 7, 1986	The Association for Computer Machinery, Special Interest Groups on Computer Science Education (SIGCSE) 17th Technical Symposium Cincinnati, Ohio.
March 5-7, 1986	The Society for Information Management's Annual Institutional Members Conference, Scottsdale, Arizona.
Sept. 28-30, 1986	Eighteenth Annual Conference of the Society for Information Management, Dallas, Texas.
Oct. 28-29, 1986	Annual Data Processing Management Association International Conference, Atlanta, Georgia.
Nov. 23-25, 1986	Eighteenth Annual Conference of the Decision Sciences Institute, Honolulu, Hawaii.
Dec. 14-17, 1986	Seventh Annual International Conference on Information Systems, San Diego, California.
April 1-3, 1987	Eighth National Conference on Data Processing Quality Assurance, Chicago, Illinois.
May 18-22, 1987	Ninth International Symposium on Computers in the Universities, Cavtat, Yugoslavia.
October 26-28, 1987	Fall ORSA/TIMS Meeting, St. Louis, Missouri.
November 2-4, 1987	Annual Data Processing Management Association International Conference, San Francisco, California.

SPEECHES, LECTURES, PAPER PRESENTATIONS

- Feb. 4, 1977 "An Investigation of Some Management Information Systems Design Variables and Decision Making Performance; Results of a Simulation Experiment," three hour presentation to the Management Information Systems Research Center Associates, Federal Reserve Bank, Minneapolis, Minnesota.
- Feb. 25, 1977 "How Can Computerized Management Information Systems Make You More Effective as a Manager?," three hour presentation at the Navajo Nation, "Top Management Perspectives Seminar - 1977," Albuquerque, New Mexico.
- Oct. 20, 1977 "A Research Framework for the MIS User-Systems Interface," Paper presented at the MIS Session, Ninth Annual American Institute for Decision Sciences Conference, Chicago, Illinois.
- Feb. 16, 1978 "Interactive Simulations for Training and Research," Presentation to the Indianapolis Chapter of the American Production and Inventory Control Society, Indianapolis, Indiana.
- May 19, 1978 "Evolution of Strategic Approaches to Systems Design," and "MIS Curriculum: Meeting Multiple Educational Objectives" papers presented to the faculty of Economics at the University of Maribor, Maribor, Yugoslavia.
- May 20-26, 1978 "MIS Curriculum: Meeting Multiple Educational Objectives," "An Empirical Study of Structured Programming Using COBOL," "Control Flowcharting for Data-Driven Systems," and "A Framework and Master Plan for the Organization's Management Information Systems," Papers presented to the faculty and graduate students of Ljubljana University, Ljubljana, Yugoslavia.
- May 24, 1978 "Distributed Information Processing Systems," A paper presented to the Central Planning Committee of the Bank of Ljubljana, Ljubljana, Yugoslavia.
- May 29, 1978 "Economic Analysis of the Application Design Process," paper presented to the members of the Economics Clubs of Maribor and Kranj at the Economics Club in Maribor, Maribor, Yugoslavia.
- June 2, 1978 "A Research Framework for the MIS User-Systems Interface" and "A Framework for the Organization's Management Information System," Papers presented to faculty and students at Szamok (International Center for Computer Studies) in Budapest, Hungary.

- June 6, 1978 "Managing Data Integrity," Paper presented to the faculty of the Institute of Informatics, University of Warsaw - in the Palace of Culture, Warsaw, Poland.
- Oct. 30, 1978 "An Empirical Evaluation of Structured Programming Techniques Using COBOL," (with John Ricketts) Paper presented at the MIS Session, Tenth Annual American Institute for Decision Sciences Conference, St. Louis, Missouri.
- Nov. 14, 1978 "The Prototype Model as an MIS Design Technique," Invited paper presented at the Association for Computing Machinery, Twin Cities Chapters, Minneapolis, Minnesota.
- Nov. 20, 1979 "Development of an Instrument to Measure MIS User Satisfaction," (with John Ricketts) Paper presented at the MIS Session, Eleventh Annual American Institute for Decision Sciences, Conference, New Orleans, Louisiana.
- Mar. 11, 1980 "Prototyping in the Systems Design Process," Invited paper presented at the ACM/DP (Association for Computing Machinery and Data Processing Management Association), Joint Computer Conference, Minneapolis, Minnesota.
- Nov. 13, 1980 "The Tools of Prototyping: Hardware, Software and People," Invited paper presented at Tymshare, Inc. "Executive Seminar: MIS and Tymshare" Minneapolis, Minnesota.
- Mar. 21, 1981 "The Use of Systems Analysis Techniques in Public Administration," Invited paper presented to the Mayor and City Administration of Ormoc City, Leyte, Philippines.
- Apr. 1, 1981 "Role of Small Computers in Business and Society" Invited paper presented at INCAE Instituto Centroamericano de Administracion de Empresas), Managua, Nicaragua. C.A.
- May 28, 1981 "Load Forecasting in the Beverage Industry" paper presented at the First International Symposium on Forecasting, Quebec City, Canada.
- Dec. 8, 1981 "The Use of Color to Enhance Information Presentations, Paper presented at the Second International Conference on Information Systems, Boston, Massachusetts.
- May 10, 1982 "Meeting the Challenge for Information Systems in the '80's," Invited paper presented at Informatica 82, Annual Conference, Ljubljana, Yugoslavia.

- May 6-20, 1982 "The Function and Use of Data Dictionary Systems," "Maintaining the Integrity of the Organization Data Resources," "Use of Color and Graphics in the Presentation of Information for Management," "New System Development Methodologies to Increase Productivity in the MIS Organization," and "The Organization and Management of the Information Systems Function in Business," Papers presented to the faculty and graduate students of Ljubljana and Maribor Universities, Ljubljana, Yugoslavia.
- May 18, 1982 "The Use of Computerized Information Systems in Libraries," and "ARTEMIS: An Automated Retrieval Technique for Examining Management Information Systems," Papers presented to a conference of academic and government librarians at the University of Ljubljana, Ljubljana, Yugoslavia.
- May 21, 1982 "Current Research in the Use of Color and Graphics in Information Systems Presentations," Invited paper presented to the faculty and staff of the Jozef Stefan Institute, Ljubljana, Yugoslavia.
- May 26, 1982 "Getting the Information Systems You Need" paper presented to the "Seminar for Senior Executives" at IMEDE-International Management Development Institute, Lausanne, Switzerland.
- Dec. 12, 1982 "A Program of Research for Investigating Management Information Systems," invited paper presented to the 1983 Doctoral Consortium at the Third Annual International Conference on Information Systems, Ann Arbor, Michigan.
- Mar. 7, 1983 "Challenges in Business Education: Technological Change and its impact on Business, Universities and Society," paper presented to elements of the Business School faculty, Marquette University, Milwaukee, Wisconsin.
- Apr. 22, 1983 "Professionalism and Purchasing: Managing the Economic, Material and Information Resources of the Organization," speech presented to the Southern Indiana Purchasing Management Association, Scottsburgh, Indiana.
- Aug. 2, 1983 "The Computer in Your Business," speech presented to the 1983 Symposium (Living With Rapidly Changing Times) of the National Civic Garden Centers, Inc., Indiana University, Bloomington, Indiana.

- Jan. 16, 1984 "Prototyping, the Process: Decision Support Systems, the Product," and "Prototyping Application Systems: A Methodology," two invited papers presented to the Grand Chapter of the Association for Systems Management, Grand Rapids, Michigan. Jan. 27, 1984 "The Prototyping Methodology for Application System Analysis and Design," Invited paper presented to the faculty and doctoral students at the Graduate School of Business Administration, Iowa University, Iowa City, Iowa.
- Mar. 15, 1984 "Prototyping Application Systems: The Process," Invited paper presented to the Atlanta chapter of the Data Processing Management Association, Atlanta, Georgia.
- July 25, 1984 "Prototyping Application Systems: The Process and the Product," two invited lectures presented at the Second AACSB MIS Faculty Development Institute, Minneapolis, Minnesota.
- Sept. 2, 1984 "The Role of Research Methodologies in MIS Research," Invited papers presented at the International Federation for Information Processing, Working Group 8.2, Colloquium Information Systems Research, Manchester, England.
- Nov. 6, 1984 "Development and Training of MIS Faculty for Schools of Business," Paper presented at the Sixteenth Annual Conference of the American Institute for Decision Sciences, Toronto, Canada.
- Nov. 7, 1984 "Some Implications of Behavioral Decision Theory for DSS Implementation and Research," (with Tom Lauer). Paper presented at the Sixteenth Annual Conference of the American Institute for Decision Sciences, Toronto, Canada.
- Jan. 17, 1985 "Changing Roles of Accounting and MIS in Business and Academia," Invited paper to the American Association of Military Comptrollers, Fort Benjamin Harrison, Indianapolis, Indiana.
- Jan. 30, 1985 "Using Fourth Generation Software Tools in Application Systems Development," Invited paper presented at the regional meeting of the Express Users' Group, Chicago, Illinois.
- Mar. 28, 1985 "The Growing Role of Software Metrics in Software Engineering," Paper presented to the faculty of the Department of Information Systems and Computer Science, National University of Singapore, Singapore.
- Apr. 22, 1985 "The Changing Role of the Organization's Chief Information Officer," Speech presented to the Board of Visitors, School of Economics and Management, Oakland University, Rochester, Michigan.

- May 3, 1985 "Research Methodologies and MIS Research: The State of the Art," Paper presented to the faculty of Commerce at the University of British Columbia, Vancouver, British Columbia, Canada.
- July 19, 1985 "The Impact of Computer Technology on Information Systems Security," Presented to the International Association of Hospitality Accountants at the 13th Annual International Hospitality Technology Conference, Chicago, Illinois.
- Aug. 1, 1985 "Fourth Generation Languages in the Classroom," Invited paper presented at the World Conference on Computers in Education, Norfolk, Virginia.
- Oct. 24, 1985 "Meeting the Needs for Quality MIS Instruction in Schools of Business," Invited paper followed by a panel discussion at the Mid-Continent Regional Deans' Meeting, Western Michigan University, Kalamazoo, Michigan.
- Jan. 30, 1986 "The Results of Prototyping in an MIS Organization: A Three Year Longitudinal Study," Paper presented to the faculty and graduate MIS students of the School of Economics and Management, Oakland University, Rochester, Michigan.
- June 3, 1986 "The Systems Development Process: Its Role in Office and Factory Automation," Paper presented to the faculty and graduate MIS students of the Management Faculty at the University of Kranj, Kranj, Yugoslavia.
- June 4, 1986 "The Impact of Fourth Generation Languages and Related Software Packages on the Systems Management Function," Paper presented to the Faculty of Economics and Informatics at the University of Maribor, Maribor, Yugoslavia.
- June 5, 1986 "The Systems Development Process: Its Role in Office and Factory Automation," and "Current Research Directions in MIS". Papers presented to the Faculty of Economics and doctoral students at Ljubljana University Ljubljana, Yugoslavia.
- Oct. 29, 1986 "Prototyping: An Information Systems Design and Development Methodology," Paper presented at the Annual Data Processing Management Association International Conference, Atlanta, Georgia.
- Nov. 7, 1986 "Software Problems and Software Solutions," Invited paper presented to faculty and MIS area managers at Auburn University, Montgomery, Alabama.

- Nov. 23, 1986 "The Complexities of the MIS Research Environment," Paper presented at the Decision Sciences Institute's Annual National Conference, Honolulu, Hawaii.
- Nov. 25, 1986 "Prototyping: The End-user Perspective," Paper presented at the Decision Sciences Institute's Annual National Conference, Honolulu, Hawaii.
- Dec. 14, 1986 "The Researcher's Role in the MIS Field," Invited speech at the Interdisciplinary International Conference on Information Systems, San Diego, California.
- Feb. 12, 1987 "Evolving Research Needs in MIS," University of Georgia Distinguished Lecture Series, School of Business, Department of Management, Athens, Georgia.
- March 12, 1987 "The Changing Impact of Information Technology on American Business," The Ledger and Quill Public Lecturer, School of Accountancy, College of Commerce, DePaul University, Chicago, Illinois.
- March 13, 1987 "The Costs and Benefits of Prototyping: A Summary of 150 Case Studies," Invited speech to members of the Panel on Information Systems Studies, DePaul University, Chicago, Illinois.
- March 24, 1987 "Systems Development in the 1990's" User-Developed and Prototyping," Invited speech at the Third Annual Wisconsin Seminar on Management Information Systems, University of Wisconsin, Eau Claire, Wisconsin.
- April 1, 1987 "The Role of MIS in Organization: Now and To The End of This Century," Invited paper, presented at the Eighth National Conference on Data Processing Quality Assurance, Chicago, Illinois.
- May 6, 1987 "Prototyping: An Information System Design and Development Methodology," Invited paper presented to faculty at the London School of Business, London, England.
- May 11, 1987 "The Role of Information Systems in Business and Economics Curriculum," Invited paper presented to the faculty of the University of Maribour, Kranj, Yugoslavia.
- May 11, 1987 "Fourth Generation Languages and Prototyping: Tools to Enhance Productivity in MIS," Invited paper presented to managers, government officials and faculty at the University of Maribour, Kranj, Yugoslavia.
- May 12, 1987 "Fourth Generation Languages and Prototyping: Tools to Enhance Productivity in MIS," Invited paper presented to top and middle management at Krka, Novo Mesto, Yugoslavia.

- May 12, 1987 "The Impact of Microcomputers in the Enterprise," Invited paper presented to non-MIS managers and professionals at Krka, Novo Mesto, Yugoslavia.
- May 18, 1987 "The Role of Data Dictionaries in Systems Development" and "The Growing and Changing Role of Microcomputers in the Business World," Invited papers presented to faculty and selected students and practitioners at the University of Ljubljana, Ljubljana, Yugoslavia.
- May 19, 1987 "Decision Support Systems: Tools, Expectations and Realities (with Janez Grad) paper presented at the Ninth International Symposium on Computers in the University, Cavtat, Yugoslavia.
- May 23, 1987 "The Role of Prototyping in Information Systems Development," Invited paper presented to the faculty at the Department of Information Systems and Computer Science, National University of Singapore, Singapore.
- May 26, 1987 "Change Needs in MIS Curriculum" Invited speech to faculty at the School of Computing and Quantitative Studies Western Australian Institute of Technology and Curtin University, Perth, Australia.
- Oct. 26, 1987 "Research Needs in MIS: The Differences in Perspectives Between Academics and Practitioners," an invited paper presented at the ORSA/TIMS Meeting, St. Louis, Missouri.
- Nov. 4, 1987 "Management Issues in Telecommunications," an invited speech presented at the Data Processing Management Association's National Conference, San Francisco, California.

SEMINARS, WORKSHOPS, PANELS

- Oct. 30, 1978 "Research in Management Information Systems," Invited panelist for a two hour session at the American Institute for Decision Sciences Annual Conference, St. Louis, Missouri.
- Mar. 28, 1979 "Impact of Computerization in Purchasing," One day seminar, National Association of Purchasing Management, Indianapolis Chapter Indianapolis, Indiana.
- July 9-13, 1979 "Systems Analysis and Project Design and Evaluation," Three day element in the "Analytical Skills Workshop," A two week program for the United States Agency for International Development (USAID), Madeira, Portugal.
- Sept. 4-7, 1979 "Systems Analysis and Project Design and Evaluation," A two week program for the United States Agency for International Development (USAID), Coolfont, West Virginia.
- Sept. 13, 1979 "Contingency and Systems Design," Half-day workshop presented at the Society for Management Information Systems Annual Conference, Minneapolis, Minnesota.
- Nov. 8, 1979 "Purchasing and Material Requirements Planning," One day seminar at the University of Oregon, Eugene, Oregon.
- Nov. 19, 1979 "Why Information Systems Fail", Invited panelist for two hour session at the Eleventh Annual American Institute for Decision Sciences Conference, New Orleans, Louisiana.
- Nov. 19, 1979 "Pedagogical and Research Issues in Information Systems Analysis and Design" (with Gordon Davis and David Naumann), Three hour workshop at the Eleventh Annual American Institute for Decision Sciences Conference, New Orleans, Louisiana.
- Feb. 11-20, 1980 "Systems Analysis and Project Design and Evaluation," Five day element in the "Analytical Skills Workshop", A two week program for the United States Agency for International Development (USAID) Panama City, Panama.
- June 2-6, 1980 "Systems Analysis and Project Design and Evaluation," five day element in the "Analytical Skills Workshop", A two week program for the United States Agency for International Development (USAID), Washington, D.C.
- June 8-11, 1980 "MIS in Operations Management," One day element in the Indiana Executive Program, Bloomington, Indiana.

- Sept. 3-6, 1980 "The Role of the Microcomputer in Business Information Systems" Three day seminar presented for INCAE (Instituto Centroamericano de Administracion de Empresas) San Pedro Sula, Honduras, C.A.
- Mar. 16-27, 1981 "The Use of Computers to Support Project Analysis, Design and Evaluation," five day element in the "Analytical Skills Workshop", A two week program for the United States Agency for International Development (USAID), Manila, Philippines.
- Mar. 31, 1981 "Audit and Control of Management Information Systems," (with Gordon Davis, One day seminar presented for INCAE (Instituto Centroamericano de Administracion de Empresas), Panama City, Panama, C.A.
- Apr. 1, 1981 "Mini-Micro Computers and Small Business," One seminar presented for INCAE (Instituto Centroamericano de Adminstracion de Empresas) Panama City, Panama, C.A.
- Apr. 4, 1981 "The Impact of Computing on Purchasing," One-half day seminar, National Association of Purchasing Management, Indianapolis, Chapter, Nashville, Indiana.
- June 6-9, 1981 "The Impact of MIS on Middle Management in the 80's," One day segment in the Indiana Executive Program, Bloomington, Indiana.
- July 22-23, 1981 "Administration of MIS", (with Gordon Davis), Two day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), San Jose, Costa Rica, C.A.
- July 24, 1981 "Audit and Control of Management Information Systems," (with Gordon Davis), One day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), San Jose, Costa Rica, C.A.
- July 25, 1981 "Mini-Micro Computers and Small Business," one day seminar presented for INCAE (Institute Centroamericano de Administracion de Enpresas), San Jose, Costa Rica, C.A.
- Oct. 5-9, 1981 "The Use of Computers to Support Project Analysis, Design and Evaluation," five day element in the "Analytical Skills Workshop, a two week program for the United States Agency for International Development (USAID), Freetown, Sierra Leone.
- Nov. 18, 1981 "Prototyping: Concepts and Applications," (with Tom Clarke) two hour workshop at the Thirteenth Annual American Institute for Decision Sciences Conference, Boston, Massachusetts.

- Jan. 13-14, 1982 "Developing an MIS Curriculum; MIS Faculty and Research: The Relationship Between Faculty and the Practitioner," Eight hour element in a two day seminar on "The Need for MIS in Higher Education" presented at the School of Business, University of Oklahoma, Norman, Oklahoma.
- Jan. 21-30, 1982 "The Use of Computers to Support Project Analysis, Design and Evaluation," Five day element in the "Analytic Skills Workshop," a two week program for the United States Agency for International Development (USAID), Port An Prince, Haiti.
- Feb. 18, 1982 "Improving Purchasing's Productivity With Information System" four hour module in Indiana Purchasing Conference, for the Purchasing Management Association of Indianapolis, in Nashville, Indiana.
- Mar. 25, 1982 "The Prototyping Design Methodology," Two hour presentation for Arthur Andersen and Company to Computer Systems Development Managers at the University Club, Chicago, Illinois.
- May 11, 1982 "Trends in the User-Information System Interface," Four hour seminar at the Informatica 82 Annual Conference, Ljubljana, Yugoslavia.
- May 19, 1982 "Organization, Staffing, Hardware and Software Resources for Improving Productivity in the Management Information Systems Function," One day seminar presented at the Celje Institute for Development, Celje, Yugoslavia.
- May 24-25, 1982 "Improving Office Productivity," (with Clay Whybark), Two day seminar presented for the Committee of the Red Cross Organization, Geneva, Switzerland.
- May 27, 1982 "Implementation of Materials Management Systems," Chairman of four hour session on role of software for the European Working Group for Production and Inventory Control, at the Center for Management of the State University of Ghent, Ghent, Belgium.
- June 2-7, 1982 "Information Systems and Management," (with Lee Gremillion) Two day element in the Indiana Executive Program, Bloomington, Indiana.
- June 15-24, 1982 "The Use of Computers and Information to Support Project Analysis, Design and Evaluation," five day element in the Analytical Skills Workshop, a two week program for the United States Agency for International Development (USAID), Cairo, Egypt.

- June 28-30, 1982 "The Use of Color-Graphic Displays in Decision Support Systems," and "The Design, Development and Implementation of Interactive Color-Graphic Systems," two day program presented at the University of Ljubljana and the Josef Stephan Institute, Ljubljana, Yugoslavia.
- July 18, 1982 "Managing the Use of Mini-Micro Computers in Small Business," One day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Panama, C.A.
- July 19-20, 1982 "Administration of MIS," Two day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Panama City, Panama, C.A.
- July 21, 1982 "Audit and Control of Management Information Systems," (with Michael Groomer), one day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Panama City, Panama, C.A.
- July 23, 1982 "Managing the Use of Mini-Micro Computers in Small Business," One day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Tegucigalpa, Honduras, C.A.
- July 24-25, 1982 "Administration of MIS," (with Michael Groomer), two day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Tegucigalpa, Honduras, C.A.
- July 26, 1982 "Audit and Control of Management Information Systems," (with Michael Groomer), One day seminar presented for INCAE (Institute Centroamericano de Administracion de Empresas), Tegucigalpa, Honduras, C.A.
- Sept. 14-17, 1982 "Using Computers to Support Management Action and Analysis," four day element in the "Analytic Skills Workshop," a two week program for the United States Agency for International Development (USAID), Washington, D.C.
- Oct. 4-5, 1982 "The What, Where, When and How of Prototyping," a two day seminar presented to MIS management and systems professionals at Owens Corning Fiberglas, Toledo, Ohio.
- Oct. 28, 1982 "Introduction to Computing and Information Systems Applications for Management and Professionals," a one day element in a two day seminar for the management and staff of the African Bureau, USAID, Washington, D.C.
- Nov. 11-12, 1982 "The What, Where, When and How of Prototyping," a two day seminar presented to MIS management and systems professionals at Owens Corning Fiberglas, Toledo, Ohio.

- Nov. 18, 1982 "Introduction to Computing and Information Systems Applications for Management and Professionals," A one day element in a two day seminar for the management and staff of the African Bureau, USAID, Washington, D.C.
- Nov. 22, 1982 "MIS and the Behavioral Sciences," Two hour workshop at the Fourteenth Annual American Institute for Decision Sciences Conference, San Francisco, California.
- Nov. 23, 1982 "Minicomputer Based Information and Decision Support Systems," Invited panelist for four hour workshop at the Fourteenth Annual American Institute for Decision Sciences Conference, San Francisco, California.
- Dec. 14, 1982 "The Impact of Fourth-Generation Languages on Information Systems Research and Pedagogy," Invited panelist-presenter in three hour workshop at the Third Annual International Conference on Information Systems, Ann Arbor, Michigan.
- Dec. 21, 1982 "Introduction to Computing and Information Systems Applications for Management and Professionals," A one day element in a two day seminar for the management and staff of the African Bureau, USAID, Washington, D.C.
- Jan. 9-14, 1983 "Using Computers to Support Management and Analysis," five day element in the "Analytic Skills Workshop," a two week program for the United States Agency for International Development (USAID), Quito, Ecuador.
- Jan. 20-21, 1983 "The What, Where, When and How of Prototyping," a two day seminar presented to MIS management and systems professionals at Owens Corning Fiberglas, Toledo, Ohio.
- Feb. 24, 1983 "What You Need to Know to Effectively Use Computerized Information Systems," a one day element in a two day seminar for new staff in the Data Management Division, USAID, Washington, D.C.
- Mar. 3, 1983 "What You Need to Know to Effectively Use Computerized Information Systems," A one day element in a two day seminar for managers and professionals in USAID, Washington, D.C.
- Mar. 14-18, 1983 "Using Computers, Systems Analysis, and Information to Support Managerial Activities," Five day element in a two week program for USAID, Nicosia, Cyprus.

- Mar. 24, 1983 "What You Need to Know to Effectively Use Computerized Information Systems," a one day element in a two day seminar for managers and professionals in USAID, Washington, D.C.
- Apr. 8, 1983 "Interactive Simulation Research in Management Information Systems: Programs of Research," Four hour workshop presented to faculty of the Management Department, School of Business, Marquette University, Milwaukee, Wisconsin.
- May 19, 1983 "Using Personal Computers in Business," One day seminar presented for INCAE, San Jose, Costa Rica, C.A.
- May 20-21, 1983 "Administration of MIS," Two day seminar presented for INCAE, San Jose, Costa Rica, C.A.
- May 22, 1983 "Audit and Control of Management Information Systems," (with Michael Groomer), one day seminar presented for INCAE, San Jose, Costa Rica, C.A.
- May 24, 1983 "Using Personal Computers in Business," One day seminar presented for INCAE, El Salvador, San Salvador, C.A.
- May 25-27, 1983 "EDP Auditing and MIS Control," (with Michael Groomer), Three day seminar presented for INCAE, El Salvador, San Salvador, C.A.
- June 1-7, 1983 "Information Systems and Management," (with Lee Gremillion) Two day element in the Indiana Executive Program, Bloomington, Indiana.
- June 20-30, 1983 "Using Computers, Systems Analysis, and Information to Support Management Activities," Five day element in a two week "Analytic Skills Workshop" for USAID, Harpers Ferry, West Virginia.
- July 5-22, 1983 "The Design, Analysis and Development of Computerized Information Systems in Organizations," Three week element in a five week "Information Systems Faculty Development Institute" presented by the American Assembly of Collegiate Schools of Business (AACSB), Minneapolis, Minnesota.
- Aug. 15-16, 1983 "The What, Where, When and How of Prototyping," a two day seminar presented to MIS Management and Systems Professionals at Owens Corning Fiberglas, Toledo, Ohio.
- Feb. 17, 1984 "Information, the New Resource," One hour element in a one day press briefing presented by the Division of Research, School of Business, Indiana University, Indianapolis, Indiana.

- Feb. 28, 1984 "Computers in Purchasing," Four hour element in a two day "Fourth Annual Indiana Purchasing Seminar" by the Purchasing Management Association of Indianapolis, Memorial Union, Bloomington, Indiana.
- May 3, 1985 "Developing MIS Faculty," (with Gary Dickson) Two hour seminar presented at American Assembly of Collegiate Schools of Business Annual and Beta Gamma Sigma Biennial Meeting, Phoenix, Arizona.
- Oct. 9, 1984 "Improved Software Development and Quality," moderator for two-hour discussion session, Society for Information Management's Sixteenth Annual Conference, Chicago, Illinois.
- Nov. 5, 1984 "Behavioral Research on MIS: Models, Methods, Melange," invited Panelist, two-hour session at the Sixteenth Annual Conference of the American Institute for Decision Sciences, Toronto, Canada.
- Jan. 23, 1985 "The Coming Age: Fifth Generation Computing," Two-hour seminar presented at the Peat Marwick Seminar for MIS Executives, Waldorf Astoria, New York, New York.
- Mar. 8-28, 1985 "The Design of Information Systems to Manage Complex Interagency Projects," Six day element in the "First World Conference on Coastal Zone Management," at the Faculty of Environment and Resource Studies, Mahidol University, Bangkok, Thailand.
- July 7-27, 1985 "Curriculum and Pedagogy, Systems Analysis and Design and Research Issues and Methods," 15 hours segment at the AACSB's Advanced MIS Faculty Development Institute, Bloomington, Indiana.
- July 18, 1985 "Software Development Workbenches," (with George Rittersbeck and Nicholas Zvegintzov), Panel presentation at the National Computer Conference, Chicago, Illinois.
- Aug. 7-8, 1985 "The What, Where, When and How of Prototyping," A two day seminar presented to MIS Management and Systems Professionals at Owens Corning Fiberglas, Toledo, Ohio.
- Oct. 21-23, 1985 "Database Directions: Information Resource Management - Making it Work," A three day workshop sponsored by the U.S. Department of Commerce, National Bureau of Standards and the Institute for Computer Science and Technology, Fort Lauderdale, Florida.
- Feb. 7, 1986 "Prototyping With Fourth Generation Languages," (with Boulton Miller, James Benjamin and Wendell Jones), Panel presentation at the 1986 ACM Computer Science Conference and SIGCSE Symposium Cincinnati, Ohio.

- March 13-14, 1986 "The Development and Use of Operational Prototypes in MIS". A two-day symposium presented to MIS managers at the Australian Department of Defense, Canaberra, Australia
- March 17-18, 1986 "The Prototyping Systems Development Methodology" A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Sydney, Australia.
- March 24-25, 1986 "The Prototyping Systems Development Methodology" A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Perth, Australia.
- June 6, 1986 "The Role of Research in MIS Education: Trends and Topics,": A three hour seminar presented to the Economics Club of Ljubljana, Ljubljana, Yugoslavia.
- June 10, 1986 "Changing Needs and Organizational Structures in MIS: Integrating the needs of the Office Factory and Knowledge Workers," a half-day seminar presented to the Slovian EDP Managers Association Meeting, Nova Mesto, Yugoslavia.
- June 14, 1986 "The Role of Applications Software in managing the Organization's Information Resources," A two hour seminar presented to a regional meeting of Informatics Systems Managers, Munich, Germany.
- July 7-26, 1986 "Research Issues in MIS, The Role of Telecommunication in MIS, Systems Analysis and Design and MIS Curriculum & Pedagogy," 21 hours segment at the AACSB's Advanced MIS Faculty Development Institute, Bloomington, Indiana.
- Aug. 18-19, 1986 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Melbourne, Australia.
- Aug. 20-21, 1986 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Sydney, Australia.
- Aug. 28-29, 1986 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Perth, Australia.
- Oct. 16-17, 1986 "Fourth Generation Technology and the Management of the Organizations Information and Systems Resources" a two day seminar presented to MIS professional and managers for Management Technology Education, Ltd., London, England.

- Oct. 29, 1986 "Managing Information Systems Resources: Tools and Methodologies," two hour seminar presented at the Annual Data Processing Management Association International Conference, Atlanta, Georgia.
- Oct. 31, 1986 "Research Methods and Processes in MIS," two hour seminar presented to the faculty of the Business School, University of Missouri, St. Louis, Missouri.
- Nov. 17-18, 1986 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Sydney, Australia.
- Nov. 20-21, 1986 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Melbourne, Australia.
- Nov. 23, 1986 "Management Information Systems Researcher's Workshop," A three session workshop presented to MIS researchers at the Eighteenth Annual National Conference of the Institute for Decision Sciences, Honolulu, Hawaii.
- Nov. 25, 1986 "A Workshop on Decision Support Systems Development and Teaching Methodologies," (with Hugh Watson and Efraim Turban) Panel presentation at the Eighteenth Annual National Conference of the Institute for Decision Sciences, Honolulu, Hawaii.
- Dec. 16, 1986 "Ph.D. Programs in Information Systems: Fundamental Issues," (with Jon Turner, Izak Benbesat, and John Henderson) Panel presentation at the Seventh International Conference of Information Systems, San Diego, California.
- Feb. 27, 1987 "The Role of the Prototyping Methodology in Development of Information Systems" a one-day seminar presented to MIS professionals and managers at the U.S. Army Information Systems Software Development Center, Ft. Lee, Virginia.
- March 13, 1987 "The Impact of Changing Technology on MIS and Accounting Curricula," presentation and subsequent panel discussion at the Professional School of Accountancy, DePaul University, Chicago, Illinois.
- May 5, 1987 "Increasing Systems Development Productivity: Software Tools and Methodologies," A one-day seminar presented to MIS managers for Management Technology Education, Ltd., Amsterdam, Netherlands.

- May 7-8, 1987 "Increasing Productivity and Improving Management in the MIS Function," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., London, England.
- May 13-14, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS managers for the International Consulting and Education Company, Inc., Otocec, Yugoslavia.
- May 25-26, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Computer Control, Ltd., Perth, Australia.
- May 28-29, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Computer Control, Ltd., Melbourne, Australia.
- June 1-2, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Computer Control, Ltd., Sydney, Australia.
- June 3-4, 1987 "The Prototyping System Development Methodology: Its Installation and Application," A two-day seminar for MIS managers for the Treasury Department, Australian Government, Canberra, Australia.
- July 6-25, 1987 "Telecommunications, Research Issues in MIS, Advanced Systems Analysis and Design, and MI[^] Curriculum", An eighteen hour segment at the AACSB's Advanced MIS Faculty Development Institute, Bloomington, Indiana.
- Oct. 15-16, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Stockholm, Sweden.
- Oct. 19-20, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., London, England.
- Oct. 22-23, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Amsterdam, Netherlands.
- Oct. 26, 1987 "The Academic and Practitioner Views of Necessary MIS Research in 1987," one and one-half hour panel discussion at the fall ORSA/TIMS Meeting, St. Louis, Missouri.
- Nov. 23-24, 1987 "The Prototyping Systems Development Methodology," A two-day seminar presented to MIS professionals and managers for Management Technology Education, Ltd., Sydney, Australia.
- Nov. 26-27, 1987 "Prototyping, 4GL's and CASE," a two-day seminar presented for MIS professionals in the Australian Government, Canberra, Australia.

PUBLISHED WORKING PAPERS AND TEACHING MATERIALS

- Dec. 15, 1977 "Readings in Systems/Information Analysis and MIS Design," (editor), Indiana Readings in Business - Number 195, Division of Research, School of Business, Indiana University, Dec., 1977, (271 pages).
- Dec. 15, 1977 "Readings in Management Information Systems," Second Edition (editor), Indiana Readings in Business - Number 182, Division of Research, School of Business, Indiana University, 1977, (323 pages).
- Oct. 4, 1978 "An Empirical Evaluation of Structured Programming Techniques Using COBOL", (with John Ricketts), Discussion Paper No. 125, Division of Research, School of Business, Indiana University.
- Feb. 20, 1979 "The MIS Manager and Major Software Package Acquisitions," Management Information Systems Research Center Working Paper.
- May 5, 1979 "Nova Contact Lens Company Case," Parts A & B with Teaching Notes, Discussion Paper No. 151, Division of Research, School of Business, Indiana University.
- May 12, 1979 "An Evaluation Technique for Sorting Algorithms" (with John Carlis) Management Information Systems Research Center Working Paper.
- Nov. 10, 1979 "Development of An Instrument to Measure MIS User Satisfaction," (with John Ricketts), Indiana University, Working Paper.
- Dec. 20, 1979 "Readings in Research Designs and Methodologies," (editor), School of Business, Indiana University, (440 pages).
- Aug. 5, 1980 "A Survey of Potential Users of ARTEMIS: An MIS-Oriented Bibliographic Retrieval System," (with Colleen Schulthesis), Discussion Paper No. 162, Division of Research, School of Business, Indiana University.
- Aug. 11, 1980 "The Prototype Model as a MIS Design Technique," (with David Naumann) Discussion Paper No. 163, Division of Research, School of Business, Indiana University, (revised from first draft, September, 1978).
- Aug. 18, 1980 "Readings on Research in MIS," (editor), School of Business, Indiana University, (612 pages).
- Apr. 15, 1981 "Introduction to Data Dictionary Systems," Discussion Paper No. 172, Division of Research, School of Business, Indiana University.

- May 1, 1981 "The Use of Color to Enhance Information Presentations," (with Lee Gremillion) Discussion Paper No. 173, Division of Research, School of Business, Indiana University.
- July 1, 1981 "Readings in Management Information Systems," Fifth Edition, (with Jeff Hoffer and Michael Groomer - (editors), Indiana Readings in Business, Indiana University, 1981, (464 pages).
- July 1, 1981 "Readings in Systems/Information Analysis and MIS Design," (editor), Indiana Readings in Business - Number 349, Division of Research, School of Business, Indiana University, 1981, (382 pages).
- Aug. 26, 1981 "An Investigation of the User-System Interface Under Different Decision Making Environments," (with John Ricketts) Discussion Paper No. 188, Division of Research, School of Business, Indiana University.
- Sept. 30, 1982 "Distributed Data Functions: An Analytic Technique for Identifying Applications with High Potential for Successful Distribution" (with Kristen Carey), Discussion Paper No. 209, Division of Research, School of Business, Indiana University.
- Oct. 4, 1982 "An Investigation of the Effects of Education on the Use of a Decision Aid," (with Richard Schilhavy) Discussion Paper No. 210, Division of Research, School of Business, Indiana University.
- Nov. 15, 1982 "The Effects of the Frequency of Variance Reports Upon Decision Maker Performance (with Linda Philipich), Discussion Paper No. 211, Division of Research, School of Business, Indiana University.
- Nov. 30, 1982 "Development of An Instrument to Measure User MIS Satisfaction," (with John Ricketts) Discussion Paper No. 216, Division of Research, School of Business, Indiana University.
- Dec. 29, 1982 "PRIMIS: a Program of Research for Investigating Management Information Systems," Discussion Paper No. 192, Division of Research, School of Business, Indiana University.
- Mar. 1, 1983 "Empirical Investigation of Systems Development Practices and Results," (with Justus Naumann and James Wetherbe), Management Information Systems Research Center Working Paper 83-09, University of Minnesota, March 1983.

- Mar. 15, 1983 "The Information Requirements Determination Contingency Model: An Empirical Investigation," (with Justus Naumann and James Wetherbe), Management Information Systems Research Center Working Paper 83-10, University of Minnesota, March 1983.
- Apr. 15, 1983 "Prototyping: A Methodology for the Design and Development of Application Systems," Discussion Paper No. 227, Division of Research, School of Business, Indiana University.
- Apr. 30, 1983 "An Annotated Bibliography on Prototyping," (with Thomas Lauer), Discussion Paper No. 228, Division of Research, School of Business, Indiana University.
- Apr. 15, 1984 "An Annotated Bibliography on Prototyping," (with Lorne Olfman) Discussion Paper No. 259, Division of Research, School of Business, Indiana University.
- Sept. 1, 1984 "Implications of Behavioral Decision Theory for Decision Support Systems Implementation and Research," (with Tom Lauer), Discussion Paper No. 273, Division of Research, School of Business, Indiana University.
- Nov. 1, 1984 "A Comparative Analysis of Effects of Computer Systems on the Performance of MBA students in a COBOL course: A Pilot Study," (with Theophilus B.A. Addo and Ellen D. Hoadley) Discussion Paper No. 276, Division of Research, School of Business, Indiana University.
- Dec. 1, 1984 "Research Methodologies and MIS Research," Discussion Paper No. 277, Division of Research, School of Business, Indiana University.
- Jan. 1, 1985 "Readings on the Creation, Care and Feeding of Computerized Application Systems in the 1980s," (editor), School of Economics and Management, Oakland University.
- Jan. 25, 1985 "The Development of MIS Satisfaction Questionnaire: An Instrument for Evaluating User Satisfaction With Turnkey Decision Support Systems," (with John Ricketts), Working Paper Series No.146, College of Business Administration, University of Houston.
- May 1, 1985 "A Survey and Analysis of Current Software Generator Products," (with Terry Ryan and Bijoy Bordoloi), Discussion Paper No. 285, Division of Research, School of Business, Indiana University.
- June 1, 1985 "An Annotated Bibliography on Prototyping," (with Ellen Hoadley), Discussion Paper No. 289, Division of Research, School of Business, Indiana University.

- July 1, 1985 "Establishment of the Context Validity of a Metric of Information Set Complexity," with Tom Lauer, Larry Davis, Michael Groomer, and Kwan Yoo), Discussion Paper No. 291, Division of Research, School of Business, Indiana University.
- July 1, 1985 "Content Validation of a Metric of Question Complexity," (with Larry Davis, Michael Groomer, Tom Lauer, and Kwan Yoo), Discussion Paper No. 292, Division of Research, School of Business, Indiana University.
- Aug. 1, 1985 "The Development of an MIS Satisfaction Questionnaire: An Instrument For Evaluating User Satisfaction With Turnkey Systems," (with John Ricketts), Discussion Paper No. 296, Division of Research, School of Business, Indiana University (revised December 1986 and submitted to the Communication of the ACM).
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"Control Flowcharting for Data Driven Systems," (with John Carlis) Informatica (11:4) December 1987, (forthcoming).

"A Tutorial on Fourth Generation Languages," (with Bijoy Bordoli) Organizacija in Cadri December 1987, (forthcoming).

"Software Acquisition: A Critical Process," Nase Gospodarstvo February 1988, (forthcoming).

CURRENT RESEARCH ACTIVITY

- KEY 1 = working paper stage
2 = data analysis stage
3 = data collection stage
4 = preliminary/proposal stage

1. (1) "Effects of Presentation Media on Decision Making Performance" (results of an interactive simulation laboratory experiment)
2. (1) "The Development of an MIS Curriculum in a Business School" (results of curriculum development activities at the School of Business, Indiana University)
3. (1) "The Effects of Color Coding Pictorial and Alphabetic Information on Short Term Memory Recall (a computerized laboratory experiment with Gortan Resinovic)
4. (1) "Getting The Information Systems You Need: The Choices" (Managerially oriented survey paper dealing with changes in technology, products, and methodologies and their impact on the availability and acquisition of information systems to support managerial decision making) (results of a field survey and library research)
5. (1) "The Effects of Color in Paired Associate Experiments (a laboratory experiment with Lee Gremillion)
6. (2) "Effects of Structure on Decision Making Performance" (results of an interactive simulation laboratory experiment with Patrick Davitt)
7. (2) "The Effects of Color Coding Information on Memory Recall," (results of a laboratory experiment with Lee Gremillion)

8. (2) "Integrating of the Prototyping and Life Cycle Development Methodologies" (case study conducted with Owens Corning Fiberglas)
9. (3) "The Implementation of the Prototyping Methodology in a Large Systems Development Organization", (results from a consulting engagement and field study)
10. (3) "Contingency Theory in Application Systems Development -- An Empirical Study"
11. (3) "Effects of a Material Requirements Planning Decision Aid on Decision Making Performance" (interactive simulation laboratory experiment)
12. (3) "The Effects of Cognitive Style on the Effectiveness of Color Graphic Presentations" (an empirical study)
13. (3) "The Review Process for Control and Documentation of Operating Prototypes" (combined survey and case study methods)
14. (3) "Expertise Requirements for Defining Databases with FOCUS" (field experiment in cooperation with the Proctor and Gamble Company)
15. (3) "The Examination of Information System Utilization by Medical Doctors in Private Practice (with Nicholas Robak and in cooperation with Eli Lilly & Company)
16. (4) "Determining the Role and Effectiveness of Policy Statements in a Distributed MIS Organization" (with Kil Suh and in cooperation with Eli Lilly & Company)