

**Albert M. Erisman**

**B.S., Mathematics, Northern Illinois University, 1962**  
**M. S., Applied Mathematics, Iowa State University, 1967**  
**Ph.D., Applied Mathematics, Iowa State University, 1969**  
**The Dartmouth Institute, Dartmouth College, July 1987**

**Work Experience**

**August 2008—Present**

***Executive in Residence, School of Business and Economics, Seattle Pacific University***  
***Editor, Ethix***

Includes half-time teaching, committee activity, executive editor of *Ethix*, and Fellow, Center for Integrity in Business. Teaching a graduate course in business ethics at the International University, Vienna, Austria (November 2008); teaching in the eMBA program on business ethics, RPI, Troy, NY (December 2008). Teaching in the DMin program at Gordon Conwell, (2011—2013) Board member for several small companies, numerous non-profits, and Fordham University Graduate School of Business. Business and economic development in various parts of the world.

**September 2005—August 2008**

***Director, Center for Integrity in Business, School of Business and Economics, Seattle Pacific University***

Became Director of the Center for Integrity in Business in 2005. Center formed to develop “Another Way of Doing Business” through research, discussions and publications at Seattle Pacific University. Continuing the work of producing *Ethix* on a bi-monthly basis as a publication of the Center for Integrity in Business. Teaching one class per quarter in business ethics and business and technology, graduate and undergraduate. Consulting with various companies and making presentations on business ethics in many parts of the world.

**April 2001-2005**

***Executive in Residence, School of Business and Economics, Seattle Pacific University***

Teach one class per quarter in the area of business, technology, and business ethics as Executive in Residence at the School of Business and Economics, Seattle Pacific University. Led the Oxford Seminar (September 2002) for SBE students studying in England during the Fall term.

***Executive Director, Institute for Business, Technology, and Ethics (IBTE)***

IBTE is a 501 (c) (3) non-profit corporation founded in 1998 to promote good business through appropriate technology and sound ethics. IBTE publishes *Ethix* magazine six times per year featuring conversations with business leaders, reviews, a forum, and columns on technology and ethics. The IBTE website ([www.ethix.org](http://www.ethix.org)) is accessed worldwide with more than 50,000 hits per month. Primary duties include writing, reviews, managing the books, the website, promotion and advertising, consulting, and speaking. Conduct formal interview with a business leader from various parts of the world, at least bi-monthly (e.g., CEO from CitiGroup, Singapore Exchange, Starbucks, Boeing, Hewlett Packard, Costco, Getty Images, Capital Steel (Beijing), Disney Resorts).

### ***Consulting***

Clients include Therapeutics Associates, TriWest, The TEC Group, Corillian, Lawrence Berkeley Labs, Deloitte and Touche, Boeing, and Hewlett Packard. Also working with several startups.

### **January 1990-April 2001**

#### ***Director of Technology, The Boeing Company***

Created and managed a group of 250-300 advanced degree computer scientists, mathematicians, statisticians, and engineers doing R&D for Boeing in the areas of information technology and mathematics. Responsibilities included managing a budget of \$45 million per year, delivering value to the company as measured by internal customers from around the company (greater than \$500 million per year over the last three years there), and creating research agendas to meet high priority business needs. Reported to the President of the Phantom Works (the Boeing R&D Center) over the final three years. A member of The Boeing Company CIO council.

### ***Teaching***

Adjunct teaching in the School of Business and Economics at Seattle Pacific University, and summer teaching at Regent College in Vancouver, BC.

#### ***Co-Founder, Institute for Business, Technology, and Ethics (IBTE)***

Co-Founded IBTE with David Gill in April, 1998, and began the publication of *Ethix* in October 1998.

### **November 1984-December 1989**

#### ***Director, Engineering and Scientific Services, Boeing Computer Services***

Responsible for a staff of 150 advanced degree mathematicians and engineers supporting The Boeing Company and the commercial and government customers of Boeing

Computer Services. Responsible for marketing technical services to external clients, including the BCS supercomputer service offering.

**January 1976-October 1984**

***Manager, Mathematics and Modeling, Boeing Computer Services***

Developed and managed a staff of 60-90 advanced degree mathematicians and statisticians providing applied research services to Boeing and the external clients of Boeing Computer Services.

***Visiting Professor, Design Research Center, Carnegie Mellon University (Feb-June, 1978)***

Writing, seminars, and teaching part of one class in numerical analysis while on sabbatical from Boeing.

**June 1973--December 1975**

***Manager, Numerical Analysis, Boeing Computer Services***

Managed a group of ten applied research mathematicians in numerical analysis. Started the international seminar series, and managed the company wide project in mathematical software. Adjunct Professor at University of Washington teaching numerical analysis.

**January 1969--May 1973**

Boeing principal scientist doing applied research in large-scale sparse matrix methods. Adjunct Professor at University of Washington teaching numerical analysis, and at Seattle University teaching electrical engineering.

**Prior to January 1969**

Graduate student, teaching most undergraduate applied mathematics courses at Iowa State University. Eighth grade teacher and coach (1962-1964) in the Kane County School District, Illinois.

**Selected Publications**

**Books**

*Making IT Better: Expanding Information Technology Research to Meet Society's Needs;* Computer Science and Telecommunications Board, National Research Council (NRC), 2000 (jointly with 15 other members of the Committee on Information Technology Research in a Competitive World).

*Direct Methods for Sparse Matrices*; Oxford University Press, 1986 (jointly with Iain S. Duff and John K. Reid).

*Electric Power Problems: The Mathematical Challenge*; Society for Industrial and Applied Mathematics, 1980 (edited jointly with K. W. Neves and M. H. Dwarakaneth).

### ***Ethix* Publication**

Bi-monthly publication of *Ethix*, the bulletin of the Institute for Business, Technology, and Ethics. Includes one or two major interviews with business leaders, a column on the role of technology in business and ethics, reviews of books, and other features. I write a column, review books, conduct and edit interviews, and have overall responsibilities for the publication including circulation and web support. October 1998--present.

### **Selected Publications**

“The Fruit of the Spirit: Application to Performance Management” Conference paper, Academy of Management, August 2011 (with Denise Daniels and Sarah Lambe)

"The Financial Crisis," *The Complete Book of Everyday Christianity*, Robert Banks & R. Paul Stevens, editors (Singapore: Graceworks Private Limited, 2011).

“Ethics, Technology, and the Net Generation: Rethinking Intellectual Property Law,” in *Dancing with Digital Natives: Staying in Step with the Generation That's Transforming the Way Business Is Done*, eds Michelle Manafy and Heidi Gautschi, Medford, New Jersey: Information Age Books, 2011. [article selected by the publisher to promote the book, Book was finalist in the General Business category in the USA Best Books 2011]

“Technology and the Gospel,” interviewed by Tim Stafford, *Christianity Today* and the Lausanne Global Conversation, June, 2010.

“Business and Technology,” *Comment Magazine*, June 2010.

“Connecting Faith and Corporate Leadership: an interview with Steve Reinemund,” *Comment Magazine*, May, 2010.

“A Response,” in *Bribery and Corruption: Biblical Reflections and Case Studies for the Marketplace in Asia* by Hwa Yung, edited by Soo-Inn Tan, 2010.

“A Christian Response to the Financial Crisis,” German Evangelical Christian newsletter *Aufbruch*, Thomas Soren Hoffman, editor; January 2009, in German.

“Called to the Marketplace,” in *Devotional Ventures*; Corey Cleek, editor; Regal Books, 2007.

“Analyzing and Responding to Different Christian Views of the Corporation”, with Dennise Daniels, Randy Franz, and Kenman Wong, *Business and Professional Ethics Journal*, 2004

"Looking to the Future of Aviation Management, Technical, and Professional Education: Using brain research, technology and marketing in the classroom of tomorrow," with Peter Morton, Tim Brady, Jordan Le Bel, John Medina, and Patricia Henderson. Proceedings of the Annual Meeting of the Council on Aviation Accreditation, July 2003.

"Managing Corporate Knowledge," *Bridges: An Interdisciplinary Journal of Theology, Philosophy, History, and Science*, Fall/Winter 2001, pp. 201-222, with David W. Gill.

"Dissecting the New Economy," *Life at Work*, January/February 2001, pp. 40-47.

"Sparsity Structure and Gaussian Elimination," *Signum Newsletter, ACM*, **23**, 1988, pp. 2-8, with I. S. Duff, C.W. Gear, and J. K. Reid.

"Advanced Computing for Manufacturing," *Scientific American*, October 1987, pp. 162-169 (reprinted and updated as a part of the *Scientific American Trends in Computing* best computer articles, 1988, pp. 148-155), with K. W. Neves.

"A Structurally Stable Modification of Hellerman-Rarick's P4 Algorithm for Reordering Unsymmetric Sparse Matrices," *SIAM Journal on Numerical Analysis*, April 1985, pp. 369-385, with R. G. Grimes, J. G. Lewis, and W. G. Poole, Jr.

"Computational Kernals," *Vector and Parallel Processors in Computational Science* I. S. Duff and J. K. Reid, Editors), North Holland Press, 1984, pp. 149-158.

"The Boeing Mathematical Software Library," *Sources and Development of Mathematical Software* (W. R. Cowell, Editor), Prentice Hall 1984, pp. 321-345, with K. W. Neves and I. R. Philips.

"A Generalized Methodology for Modeling System Components in Power System Dynamics Simulation," *IEEE Transactions on Power Apparatus and Systems*, January 1982, pp. 136-146, with M. H. Dwarakanath, B. Dembart, K. Hemmaplardh, and J. W. Manke.

"Analysis of Descriptor Systems Using Numerical Algorithms", *IEEE Trans.Aut.Cont.*, Feb. 1981, pp 139-147, with R. F. Sincovec, E. Yip, J. Manke.

"Sparse Matrix Problems in Electric Power Systems Analysis," *Sparse Matrices and Their Uses* (Iain S. Duff, Editor), Academic Press, 1981, pp. 31-56.

“The Use of Mathematical Software Outside the Mathematical Software Community: A Panel Discussion,” *Performance Evaluation of Numerical Software* (L. D. Fosdick,

Editor, North-Holland Press, 1979, pp. 273-283, with B. Einarsson, S. Hitotumatu, L. Fl Shampine, J. H. Wilkinson, N. N. Yanenko.

"On George's Nested Dissection Algorithm," *SIAM Journal on Numerical Analysis*, **13**, 1976, pp. 686-695, with I. S. Duff and J. K. Reid.

"On Computing Certain Elements of the Inverse of a Sparse Matrix," *ACM Communications*, March 1975, pp. 177-178, with W. F. Tinney.

"Monitoring the Stability of the Triangular Factorization of a Sparse Matrix," *Numerische Mathematic* 1975, pp. 183-186, with J. K. Reid.

"Hybrid Sparse Matrix Methods," *IEEE Transactions on Circuit Theory*, November 1973, pp. 641-649, with Benjamin Dembart.

"Decomposition Methods Using Sparse Matrix Techniques with Application to Certain Electrical Network Problems," *Decomposition of Large-Scale Problems* (D. M Himmelblau, Editor), North-Holland Press, 1973, pp. 69-80.

"Exploiting Problem Characteristics in the Sparse Matrix Approach to Frequency Domain Analysis," *IEEE Transactions on Circuit Theory*, May, 1972, pp 260-264, with Gary Spies.

"Sparse Matrix Approach to the Frequency Domain Analysis of Linear, Passive Electrical Networks," *Sparse Matrices and Their Applications* (Donald Rose and Ralph Willoughby, Editors), Plenum Press, 1972, pp. 31-40.

### **Recent and Selected Professional Presentations**

"The Fruit of the Spirit: Application to Performance Management" Conference paper, Academy of Management, August 2011 (with Denise Daniels)

"Ethix: An Open Source Teaching Tool", Academy of Management, Workshop presentation, August 2011, (with Gerard Beenen)

"The Purpose of Business," Fordham Consortium presentation, August 2011

"Bribery and Corruption and Its Role in Economic Development, " Bottom Billion, Bottom Line conference, April 1-2 2011

"Business Ethics and Corporate Social Responsibility," Queens University, Belfast, December 6, 2010; University of Limerick, Dublin, December 9, 2010

"The Purpose of Business," Business and the Community event, Guinness Conference Center, Dublin, Ireland, December 8, 2010

“Business Ethics and an Economic Downturn,” Irish Institute Alumni, December 8, 2010

“Ethics and the Media,” Invited Speaker, Wolfsberg Seminar, Wolfsberg, Switzerland, October 2009

“Tacit Assumptions in the Field of Mathematical Software,” Invited speaker, International Mathematical Software conference, Oxford, England, July 2009

“Why Be Ethical in Finance,” Invited Speaker, Symposium on Leadership in Finance, Bangui, Central African Republic, June 2009

“A Biblical View of Work and Faith,” invited talk for the business track at the InterVarsity Following Christ conference, December 2008.

“Business as Missions,” Plenary Panel Discussion, Urbana 2006, Open for Business Track, St. Louis, MO, December 30, 2006.

“Case Studies in Business Ethics,” Workshop, Urbana 2006, Open for Business Track, St. Louis, MO, December 30, 2006.

“Business and Religion,” Invited Plenary speaker, Leadership Ethics: the Moral Dimension of Leadership in the Marketplace, Sandberg Leadership Center, Ashland Theological Seminary, November 2,3, 2006.

“Reaching Beyond a Christianized Audience,” CEO Conference, Chicago, IL. October 18-20, 2006.

“Good Companies?” Sixth International Symposium on Catholic Social Thought and Management Education, Rome, Italy, October 5-7, 2006.

“Why Shareholder Value has Failed as a Purpose for Business,” The Tepper School, Carnegie Mellon University, Pittsburgh, PA, April 24, 2006.

“The Immune System and Organizational Culture,” Lally School of Management and Technology, Rensselaer Polytechnic Institute, Troy, NY, December 2, 2005

“Creating a Positive Business Culture: sound ethics and good business,” International Islamic University School of Business, Kuala Lumpur, Malaysia, August 3, 2005

“Leadership and Ethical Practices: Issues in Asia,” all day workshop, Eagles Leadership Conference, Singapore, July 28, 2005.

“Traits of a Healthy Organizational Culture,” Trisakti University School of Business, Jakarta, Indonesia, July 22, 2005

Presentations on business ethics, multiple universities and public forums, March 2005, Hong Kong.

“Recognizing Corporate Immune Systems,” Invited Keynote presentation, Society of Consulting Psychology Midwinter Conference, February 11-13, 2005, San Antonio, TX

“Why Be Ethical in Business,” Serial Lectures given by Renowned Figures at Home and Abroad, sponsored by the State Owned Assets Commission of the State Council, September 7, 2004, Beijing, China.

Presentations on business ethics, multiple universities, September 6, 8, 10, 11, 2004, Beijing, China

“Ten Principles of Ethical Business Professionals,” Workshop presented at the Ambition, Money, and Self Conference sponsored by Eagles Communications, July 17, 2004, Bangkok, Thailand.

“Finding Context for Technology and Ethics,” Seventh Annual Ethics and Technology Conference, Chicago, IL, June 2004, Invited Keynote Address.

“Analyzing and Responding to Different Christian Views of the Corporation,” presented at the “Faith, Profit & Decision Making” Conference, sponsored by Wheaton College’s Center for Applied Christian Ethics, March 2004 (jointly written with Denise Daniels, Randall Franz and Kenman Wong).

“Seven Success Factors for Large-Scale Information Systems,” presented at a Think Tank at the UBS Leadership Development Center, Switzerland, September 2003.

"The Technology Factor in Business Trust," Top Management Forum, sponsored by the Turku School of Economics and Business Administration, Turku, Finland, February 27, 2003.

"Ethics in Business: Business Benefit or the Right Thing," Workplace Integrity Conference, Regent College, Vancouver, BC, February 8, 2003.

"Staring Down the Barrel of a Cannon," Breathing Life in a Web Based Economy, Keynote address, sponsored by IVCF, Cambridge, MA, April 2000.

"Technology Transformation of the Workplace," Fifth Annual International Conference Promoting Business Ethics, sponsored by the Vincentian Universities in the United States, Chicago, IL, October 29-31, 1998.

## **Other Work**

## **Research**

The feasibility of micro-economic development in the Central African Republic, visit and data gathering, June 2006. Final report completed August 2006.

### **Articles**

“The Purpose of Business,” from Fordham presentation.

“Understanding and Managing the Corporate Immune System,” in preparation.

### **Books in Preparation**

*The Accidental Executive: Studies in Business, Faith, and Calling from the Life of Joseph.*

*Direct Methods for Sparse Matrices, second edition* (with John Reid and Ian Duff, Oxford Press)

*Finding Integrity in Unexpected Places*, a book of in depth stories of ethical business leaders based on interviews published in *Ethix*.

*Purpose of Business*, with David Gautschi and Jonathan Storey

### **Service**

Men’s Retreat speaker, Westminster Chapel, “Integrity” (October 10, 2009)

Lunch speaker for SPU Thursday Food for Thought (Feb. 25, 2010)

Kiros Board, 2001--present

Kiros Tacoma (Jan. 15, 2010, November 2011)

Faith Integration Committee (SBE)

### **Honors**

Selected as Distinguished Alumnus, Mathematics Department, Iowa State University, 2009

Selected to the Hall of Fame for the *Northern Star*, student newspaper at Northern Illinois University (former editor of the *Star*) in 2009.

Selected as Ambassador of the Year for the School of Business and Economics, Seattle Pacific University, in 2008, 2011

Selected for the Dean's Award for the School of Business and Economics, Seattle Pacific University, 2007

Selected by the Society for Industrial and Applied Mathematics (SIAM), Mathematical Software Pioneer, one of 37 international interviews in the Oral Histories section of SIAM, 2005

Selected as one of eleven inaugural Senior Technical Fellows of The Boeing Company in 1990.

### **Other Professional Activities (selected, recent)**

Theology of Work project, board of advisors, executive committee, 2007—present., planning committee lead, post 2013 strategy, 2011--, Theology Foundations committee, 2011--, promotion committee lead, 2011--

Mathematics Department Advisory Committee, Iowa State University, 2007--present

Fordham University, Graduate School of Business Advisory Board, 2010-present

Fellow, Fordham International Consortium, 2010—present (General Chairman, Seattle Symposium, August 2011)

Rensselaer Polytechnic Institute, Lally School of Management and Technology, Review Board member, 2005--2009.

Washington Technology Center board of directors, 1998-2005; chair 2003-2005.

National Institute for Standards and Technology review board, Chairman of the Information Technology review committee, sponsored by the National Academies, 1999-2005

Board member, Institute for Business, Technology, and Ethics, 1998-present

National Academy committees on supercomputing (early 1990s) and information technology in a competitive world (1996-99).

National Science Foundation committee on the state of mathematics (1994-98).