

Robson Forensic

Engineers, Architects, Scientists & Fire Investigators

LINDA VOLONINO, Ph.D., CISSP, ACFE
Information Systems Electronic Discovery Expert
Computer Forensics Investigator

PROFESSIONAL EXPERIENCE

2002 to present **Robson Forensic, Inc.**
Associate

Provide technical investigations, analysis, reports, and testimony for failure analysis, and towards the resolution of litigation involving statistical analyses, data mining, and data extraction; database design and SQL; systems analysis and design; customer relationship management (CRM) and database marketing; computer forensics and digital recovery; project management; and telecommunications.

1986 to present **Canisius College, Buffalo, New York**
Information Systems Professor (Full Professor, tenured)

Teach in the MBA (Master of Business Administration) and Undergraduate programs. Primary areas of expertise:

- **Information Systems:** Analysis of the requirements and specifications of proposed information systems (IS); evaluation of hardware and software solutions; estimation of costs and resources needed to complete the project. Management of the design and implementation of IS projects using standard methods, specifically Systems Analysis and Design techniques (SADT) and Project Management. Testing and post-implementation review.
- **Database Management Systems:** Design of the logical (users') view of data and file structures of database systems; design of queries for data retrieval using structured query language (SQL). Implementation of databases in Microsoft Access and Oracle.
- **Digital Network and Computer Security:** Assess and strengthen the security of computer networks, information systems, and users' procedures against external and internal attacks. Analysis of firewalls, intrusion detection systems, secure use procedures, and anti-virus software. Evaluation of sufficient due diligence and reasonable care to protect proprietary and customer data.
- **Statistical Analysis and Data Mining:** Analyze large data bases containing hundreds of variables and thousands of records; perform descriptive statistics to determine the quality and usability of the data. Identify appropriate procedures for handling or transforming incomplete or missing data. Classify the data according to standard levels of data measurement: nominal level, ordinal level, interval level, or ratio level. Determine proper statistical technique, either parametric statistics or nonparametric statistics, based on the data level to use for hypothesis testing, forecasting, or other business purposes. Assess the integrity of the statistical procedures based on the data quality and type. Evaluate the validity of the inferences drawn from statistical analyses.

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- **Project Management:** Apply industry-standard project management procedures for estimating budgets, time, and other resources required for project completion. Resolve over-allocation of resources. CPM and PERT analysis; assess crash times, costs and feasibility.
- **Telecommunications:** Analyze businesses' data or voice network problems. Identify opportunities for improving business capabilities through telecom networks.
- **Electronic Commerce (eCommerce) and Website Design:** Analysis of online business requirements, design, development, and implementation of websites for eCommerce for existing businesses.

1998 to **Canisius College**

2006

Director, Master of Science in Telecommunications Management

Collaborated with the major telcos, Bell Atlantic (Verizon), MCIWorldcom, and Sprint, to develop an AACSB-accredited Master of Science Degree in Telecommunications Management (MTM). Responsible for directing the MTM academic/industry partnership and advisory committee, and developing seminars for the business community and agencies.

1996 to
present

The Data Warehousing Institute (TDWI)

Associate Editor, The Journal of Data Warehousing

1996-present

Research Associate

2000

Industry Studies, for TDWI. Researched the operational data stores and data mining capabilities of Harrah's Entertainment Inc. and AT&T. Reported on their strategic initiatives to enhance customer service, improve cross-sell opportunities, streamline supply chains, and optimize customer interactions across all channels. Reported on their data warehouse architectures and infrastructure to support their initiatives.

Judge. Leadership Award in Data Warehousing Competition

1999

Judge. Best Practices in Data Warehousing Competition

1995

PROFESSIONAL CREDENTIALS

Associate Computer Fraud Examiner (ACFE), 2005

Certified Information Systems Security Professional (CISSP), 2003

Certificate of Completion, AccessData's Forensic Toolkit (FTK), Password Recovery Toolkit (PRTK), and Ultimate Forensics Toolkit (UTK) BootCamp, 2006

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EDUCATION

Ph.D. in Management Information Systems, State University of New York at Buffalo, 1987

M.B.A. in Management Information Systems and Management Science, State University of New York at Buffalo, 1984

B.S. in Psychology, Mercy College, Dobbs Ferry, New York, 1975

Additionally:

“Symposium for Entrepreneurial Education,” Center for Entrepreneurship, Babson College, Boston, Massachusetts, 1993, 1994

“Ultimate Hacking Training,” Foundstone, Denver, Colorado

As a Secure Member of the FBI InfraGard Program, November 2001:

“Working Together: An Industry-Law Enforcement Dialogue,” Washington, DC

Toured FBI Headquarters and the Strategic Information and Operations Center (SIOC).

Briefed on national security issues at the FBI Academy, Quantico, Virginia

PROFESSIONAL MEMBERSHIPS

FBI InfraGard

ISACA (Information Systems Audit and Control Association)

ISSA (Information Systems Security Association)

Academy of Computing Machinery (ACM)

Association of Financial Professionals (AFP)

Association of Certified Fraud Examiners (ACFE)

PROFESSIONAL E-SEMINARS AND WORKSHOPS

1995 to present

Develop lectures and seminars on leading edge technology issues, including computer forensics and digital evidence discovery, cyber crime, project management, database technology, statistical analysis of marketing data, and data mining.

“Credit Fraud Detection, Prevention, and Management,” presented to managers at Hitachi Data Systems, Santa Clara, CA. August 17, 2007.

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“Electronically Stored Information (ESI), Amended Federal Rules of Civil Procedure, and Litigation-Preparedness,” presented to senior managers at Methode Electronics Inc., Chicago, IL. July 17, 2007.

Keynote Speaker, “When Cyber Crimes Occur, Whose Fingerprints are on the Digital Weapon?” at the 2006 4th Annual ISSA Metro Louisville Information Security Conference, Louisville, Kentucky, Oct. 10, 2006.

“Computer Forensics,” Lorman Seminar. Columbus, OH. March 2006.

“You’ve Got Jail.” Prentice Hall Information Technology Seminar. New Orleans, LA, March 2005; and Las Vegas, NV, April 2005.

“Legislative, Legal Compliance, Ethics, and Data Privacy.” McIntire School of Commerce, Master's in Management of Information Technology. Charlottesville, VA. Nov. 2005.

“Sarbanes Compliance and Fraud Management.” University of North Virginia, Reston, VA. Feb. 2006.

“Anti-Fraud Management.” Chicago, IL, March 23, 2006.

“The Hacker Industry: Bigger than U.S. Steel—Hacker Techniques: Stronger than Your Firewalls & Employees.” Chapter meeting of ISSA, Feb. 2005.

“Best Practices In Controlling Viruses, Spam & Spyware.” InfoTECH Niagara, Jan. 2005.

“Unlocking the Truth on Personal & Corporate Security.” Annual Conference of the North Carolina Computer Instructors Association, Wilmington, NC. March 2004.

“Computer Forensics and Electronic Evidence (E-Evidence).” For the Information Systems Audit and Control Association (ISACA). Feb. 2004.

“Electronic Evidence and Computer Forensics.” Tutorial. For the Association of Information Systems. Tampa, FL. August 2003.

“Litigation of Lawyers: Computer Forensics.” Seminar for Ohio State Bar Association Continuing Legal Education (OSBA, CLE) Institute. Cleveland, OH. Dec. 2002.

“Cyber Security and Exposure, Internet/Intranet Information Management, and Law Enforcement,” For Investigations Division of Canada Customs and Revenue Agency (CCRA), Toronto, Canada. June 2002.

“Cyber Vulnerabilities,” For Office of Telecommunications, Utilities and Franchises. Department of Public Work, City of Buffalo, NY. June 2002.

“Cyber Terrorism in America,” Symposium sponsored by US DOJ, WDNY. For the Office of US Attorney Michael A. Battle, the FBI, and Federal Law Enforcement. Batavia, NY. May 2002.

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“Digital Liability Management: How to Keep Your Computers Safe from Hackers and Lawyers,” *Current Issues for Corporate Leadership* Conference. Center for Professional Development. Amherst, NY. April 2002.

“Keeping Your Computers Safe from Hackers and Lawyers,” For the Independent Laboratory Distributors Association (ILDA), at *Success...Whatever It Takes!! 2002 Spring Meeting*, Niagara Falls, Canada. April 2002.

“Business Risks and CyberSecurity Issues of the Internet and Email,” Center for Professional Development. Canisius College Business Forum. April 2001.

“Protecting Digital Infrastructures from Cyber-Terrorism and Computer Crime,” For Local Emergency Planning Commission (LEPC), Buffalo, NY. March 2001.

“CRM and Data Cleansing,” Telecom Management Seminar. Jan 2001.

“eCommerce Issues for Small Businesses,” For SCORE. Nov 2000.

“Databases for Fingerprints, Faceprints, DNA, and Ballistics Prints,” For Buffalo Computer Club. Sept 2000.

“Aviner Des Politzei” (Future of the Police), Presentation for the Future of the Lawyer Commission, Buenos Aires, Argentina. w/ H.L. Meyer, Esq. Nov 2000.

Presented two 3-day seminars and workshops on Cyber-Terrorism, methodologies and technologies to protect against hacker attacks and manage intrusions at Etisalat Telecommunications Academy in Dubai, UAE:

- *Cyber-Terrorism, Computer Forensics, and Digital Security* Seminars for the Public Sector, Oct 2000.
- *Cyber-Terrorism, Computer Forensics, and Digital Security* Seminars for the Private Sector, Oct 2000.

“Leveraging Customer Data to Increase Sales,” (2-day seminar) Co-presented with Dr. Guy Gessner. July 2000.

Keynote Speaker, “Computer Forensics and Electronic Media Discovery,” FedEx Research Center, Memphis, TN. March 2000.

Keynote Speaker, “Innovations and Issues: Telecommunications and the New Millennium,” Construction Financial Management Association, Jan. 2000.

Keynote Speaker, “Computer Forensics, Technology and Applications,” Information Industry Initiative, MIS Research Center, University of Minnesota. Dec. 3, 1999.

Guest Lecturer, SUNY at Buffalo Law School. On Legal research, data discovery, and legal IT issues, 1999-2001.

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“Circuit-Switching vs. Packet Switching: Differences in Taxation Implications,” For Tax Accountants, Nov. 1998.

Keynote Speaker, “Development of Marketing Tools Using IT,” Computer Technology (ComTech) Trade Show, Oct. 1998.

Keynote Speaker, “Information Technology for Marketing,” Buffalo/Niagara Sales and Marketing Executives, Inc., Jan. 1998.

Invited Speaker and Visiting Scholar, *Topics: Electronic Commerce; Distance Education; and Telecommunications*, City University, Hong Kong, People's Republic of China, March 1–13, 1998.

Keynote Speaker, “Web Site ROI: Maximize Return and Customer Value,” MIS Research Center, Associates Program for *Fortune 100* Corporate Sponsors, Sheraton Metrodome, Minneapolis, MN, Oct. 1997.

Visiting Professor and lecturer, *Avoiding Waste and Nonsense Through Information Technologies*. Dept. of International Management, University of Hamburg, Germany, Nov. 1996.

Visiting Professor and lecturer, *Electronic Commerce*, Federal University, Rio de Janeiro, Brazil, Executive MBA Program, Aug. 1996.

“Decision Structuring Using Simulation,” International Institute for Applied Systems Analysis, Laxenburg, Austria, Sept. 1995.

CONSULTING EXPERIENCE

White-Collar Crime Advisor to US Attorney Michael A. Battle, Western NY District, US DOJ. 2002-2006

University of Memphis. Computer forensics investigation of illegal remote control of email and computer accounts using email-transmitted Trojan horses. Investigated allegations by employees that they were being attacked or compromised by other employees. Verified the original source of the attacks using IP addresses. Investigated hard drives for evidence of hostility toward employees or planting of incriminating evidence. Dec 2001-Feb 2002.

Phillips Lytle Hitchcock & Blaine LLC. 2000-2002

- Investigated database intrusions. Discover digital evidence; recreate or recover evidence of wrongdoing conducted via email, fax, and the Internet. Expert witness. Verify compliance with Court's cease and desist orders.
- Investigated computer and email accounts to determine theft of proprietary information, violation of patent protection, and violation of non-compete agreements. Prepare testimony of violations.

Computer-Mediated Criminal Investigations. Investigated hard drives and Internet activity for digital evidence. Provide expert witness testimony on digital evidence.

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Center for Professional Development.

- Taught Project Management methodologies and software.
- Taught data analysis and statistical techniques for Customer Relationship Management (CRM) initiatives. Provided training in SPSS (statistical package) for mainframes and Windows operating systems.

The Data Warehousing Institute. Interviewed executives and IS managers involved in data warehouse implementations and developed case studies.

CLE Lecturer for the Erie County Bar Association, Institute of Law, Session on the use of fingerprint, face print, DNA print and ballistics database technologies to support criminal investigations.

U.S. Department of the Interior. Bureau of Reclamation, Denver, CO. Designed and developed the prototype for the online database of water desalination plants.

Better Business Bureau of Western New York. Advisor for the launch of BBB Online.

Design For Industry, Inc. Design and development of database applications for contract estimations, management of work-in-process, and contract compliance.

Blue Cross and Blue Shield. Taught Project Management methodologies and Microsoft Project 98, and 2000.

The Sutherland Group, Rochester, NY. Conducted market data analyses and modeling (for their client, the Xerox Corporation).

BOOKS AND JOURNAL PUBLICATIONS

1999 to present

Books

Computer Forensics For Dummies, John Wiley & Sons, Inc., 2008.

Information Technology for Management: Improving Performance in the Digital Economy, 7th Ed., John Wiley & Sons, Inc., 2009.

Computer Forensics: Principles and Practice. Prentice-Hall, 2007.

Principles and Practice of Information Security: Protecting Computers from Hackers and Lawyers. Prentice-Hall, 2004

Accounting and Information Systems. Published by ASCA, 2001.

Keeping Your Computers Safe from Hackers and Lawyers. Textbook. May 2002.

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Defending the Bottom Line: A Corporate and Legal Handbook on Cyber Security and Digital Discovery. Textbook. Jan 2002.

Accounting and Information Systems, for the Arab Society of Certified Accountants (ASCA), Co-authored with Greg Meyer, CPA. (January 2001).

Book Chapters and Papers

Networking: Discovery, Communication, and Collaboration (Chapter 4), in *Information Technology for Management: Transforming Organizations in the Digital Economy*, 6th Ed., Efraim Turban et al., John Wiley & Sons, Inc. 2007.

Security (Chapter 16), in *Information Technology for Management: Transforming Organizations in the Digital Economy*, 6th Ed., Efraim Turban et al., John Wiley & Sons, Inc. 2007.

Forensics Accounting. In the *Encyclopedia of Criminal Justice*, R.K. Rasmussen, Ed. Salem Press, 2005.

Vicarious Liability. In the *Encyclopedia of Criminal Justice*, R.K. Rasmussen, Ed. Salem Press, 2005.

Computer Forensics. In the *Encyclopedia of Criminal Justice*, R.K. Rasmussen, Ed. Salem Press, 2005.

Security Middleware. In *The Handbook of Information Security*, H. Bidgoli, Ed. John Wiley & Sons, Inc. 2005.

When Cyber Attacks Occur, Whose Fingerprints are on the Digital Weapon? The Erie County Bar Bulletin. April 2002.

Electronic Evidence and Computer Forensics. *Communications of the Association for Information Systems*. Vol. 12, Article 27. Oct. 2003.

“Customer Relationship Management at Harrah's Entertainment”, In *Decision Making Support Systems: Achievements, Trends and Challenges for the New Decade*, Chapter X. Edited by M. Mora, G.A. Forgionne and J.N.D. Gupta, Forthcoming Sept 2002.

Journal Publications

Gessner, Guy H. and Linda Volonino, “Quick Response Improves Returns on Business Intelligence Investments.” *Information Systems Management*. Summer 2005, pp. 66-74.

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Volonino, Linda, Janice C. Sipior, and Burke T. Ward, "Managing the Lifecycle of Electronically Stored Information," *Information Systems Management*, Vol. 24, Number 3, Summer 2007.

Gessner, Guy H., Linda Volonino, and Lynn A. Fish, "One-Up, One-Back ERM in the Food Supply Chain," *Information Systems Management*, Vol. 24, Number 3, Summer 2007.

"When Cyber Attacks Occur, Whose Fingerprints are on the Digital Weapon?" *The Erie County Bar Bulletin*. April 2002.

"The Death of the Law Schools and the Transfiguration of Legal Practice," *45th Congress of the International Association of Lawyers*: Turin, Italy. August 2001. Co-author H.L. Meyer, Esq.

"AT&T's Integrated Customer View—A New Era for Customer Relationship Management," *The Data Warehousing Institute Industry Study 2000 - Harnessing Customer Information for Strategic Advantage: Technical Challenges and Business Solutions*, Jan 2001. Co-author Dr. G.H. Gessner.

"Harrah's High Payoff from Customer Information," *The Data Warehousing Institute Industry Study 2000 - Harnessing Customer Information for Strategic Advantage: Technical Challenges and Business Solutions*, Jan 2001. Co-author Dr. H.J. Watson.

"Preventing Data Warehousing Disincentives Created by Conventional Cost Allocation Methods," *Journal of Data Warehousing*, Spring 2000. W/ Dr. G.H. Gessner and Dr. G.F. Kermis.

"Aviner Des Politzei" (Future of the Police), *Future of the Lawyer Commission Conference*, Buenos Aires, Argentina. Nov. 2000. Co-author H.L. Meyer, Esq.

"Making and Managing Profits: The Role of Marketing Data Warehouses," *Journal of Data Warehousing*, Summer 1999. W/ Dr. G.H. Gessner.

Conference Publications

"Computer Forensics, E-Discovery, and Spoliation: Impact of the New Federal Rules." *13th Annual Americas Conference on Information Systems*. August 2007.

"A Framework for Enterprise-Wide Wi-Fi Network Access Security Management," *Proceedings of the European and Mediterranean Conference on Information Systems*, June 24-26, 2007, Valencia, Spain.

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EDITORIAL WORK

Guest Editor: Electronic Records Management Special Issue, *Information Systems Management*, 2006-2007.

Honorary Associate Editor, *Communications of the Association for Information Systems*, July 2005.

Associate Editor, *Business Intelligence Journal*, 2000-present.

EXPERT NOT RETAINED